

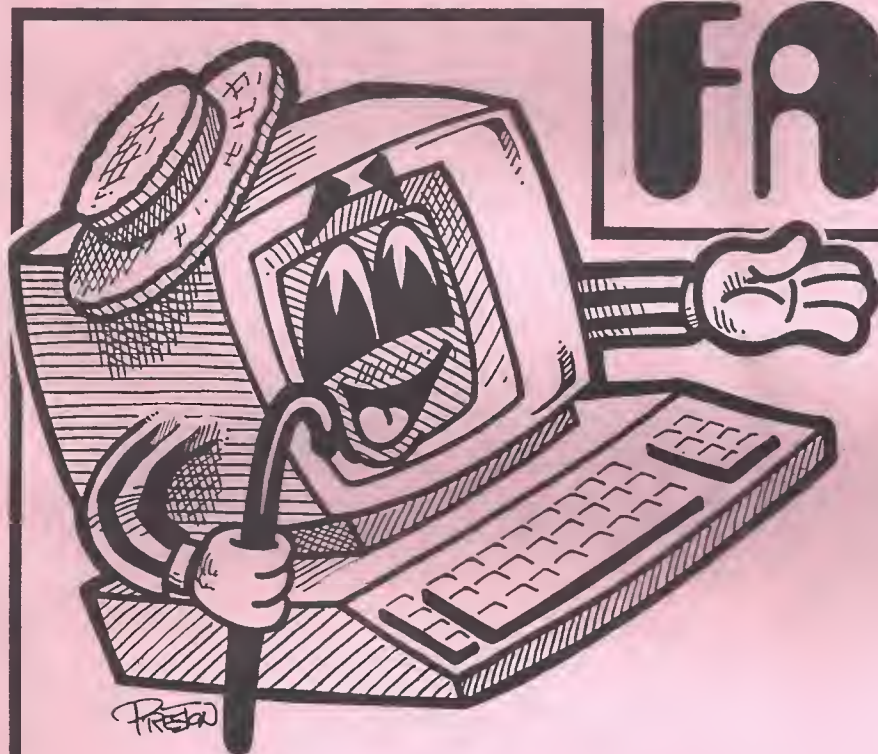
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ENERGY =  $MC^2$ ...THE MICHIGAN COMPUTER CONSORTIUM MAGAZINE

ISSN: 0740-2759

MAY 1984

# COMPUTER FAIRE



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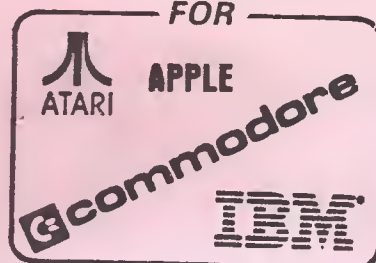
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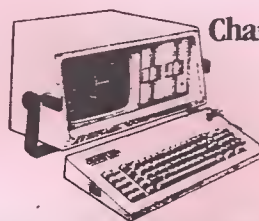
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 1 2 3 4 5 6 7  
 8 9 10 11 12 13 14  
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# CONSORTIUM CALENDAR

MAY 1984

JUNE 1984  
 SU MO TU WE TH FR SA  
 1 2  
 3 4 5 6 7 8 9  
 10 11 12 13 14 15 16  
 17 18 19 20 21 22 23  
 24 25 26 27 28 29 30

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		1	2	3	4	5
		CHAOS BASIC SIG	IM36 EXEC			
6	7	8	9	10	11	12
CMTUG			LACC			COMPUTER FAIR
13	14	15	16	17	18	19
Mothers Day	ENERGY deadline	OSBORNE SIG CHAOS BASIC SIG	IM36 CHAOS ASM SIG		CHAOS APPLE LUG	
20	21	22	23	24	25	26
	UPCO (IBM PC)					
27	28	29	30	31		
Memorial Day			CP/M SIG			

This listing is as accurate as the information we receive.  
 To list an event or update information, contact Joe Wanner  
 at 337-7415 (evenings).

## Apple LUG (Lansing Users Group)

Meets: Last Saturday 9:30 am  
 2nd floor, Ericsson Hall, MCL  
 Contact: C. A. Scholz ed 373-7533  
 484 Box Tree Lane #101, East Lansing, MI 48803

## CCUG (Color Computer Users Group)

Meets: East Lansing Public Library, 950 Abbott, E.L.

## CHAOS (Capital Hill Atari Owners Society) (MC2)

Meets: Third Saturday 9:30 AM  
 Foster Community Center, 200 N Foster, Lansing  
 Contact: Ike Hudson 351-3992

## CHAOS Assembler SIG (MC2)

Meets: 3rd Thursday  
 (April meeting at Mike Caterino's house -  
 contact Mike at 371-3678 or 337-0248)  
 Contact: Wendell Proudfoot 371-3678

## CHAOS BASIC SIG (MC2)

Meets: 1st and 3rd Wednesdays 7:00 PM  
 Foster Community Center, 200 N Foster, Lansing  
 Contact: Mike Aldrich 334-2412

## CMTUG (Central Michigan TRS-80 Users Group) (MC2)

Meets: First Sunday, 1 PM  
 Library of Michigan, 735 East Michigan, Lansing  
 Contact: Skj Tribell 346-1857

## LACC (Lansing Area Commodore Club)

Meets: First Wednesday (usually) 7:30 pm  
 All Saints Episcopal Church  
 800 Abbott, East Lansing

## MSB (Mid-Michigan Microcomputer Group) (MC2)

Meets: Third Thursday (usually), 7:30 PM  
 East Lansing Public Library, 950 Abbott, E.L.  
 Contact: Dave Chun 394-6318  
 Executive Meetings:  
 First Thursday, 7:30 PM  
 Beggar's Banquet, 218 Abbott, East Lansing

## MC2 CP/M SIG (MC2)

Meets: Last Thursday, 7:30 PM  
 Foster Community Center, 200 N. Foster, Lansing  
 Contact: Greg Martin 484-5850

## MC2 Heath/Zenith SIG (MC2)

Meets: All Saints Episcopal Church  
 800 Abbott, East Lansing  
 Contact: Bill Goodwin 349-9657

## MC2 Osborne SIG (MC2)

Meets: 2nd Wednesday, 7:30 pm  
 East Lansing Public Library, 950 Abbott, E.L.  
 Contact: Jim Pease 322-8746

## MC2 Users Group (MC2)

Meets: 2nd Tuesday  
 Naval-Marine Corps Reserve Center  
 1629 E. Saginaw, Lansing  
 Contact: Steve Bennett, 377-1676 (days), 394-1439 (eves)

## U.P.C.O. (Unknown Personal Computer Organization--IBM PC group)

Meets: 4th Tuesday, 7:30 PM  
 Natural Resources Bldg., MSU  
 Contact: Dick Janson 323-7090 X 224 (days), 675-7452

NOTE: Clubs which are members of the Michigan Computer  
 Consortium are designated by (MC2) following their names.



## ABOUT ENERGY

**ENERGY** is published monthly by the Michigan Computer Consortium (MC<sup>2</sup>), P.O. Box 1302, East Lansing, Michigan 48823. **ENERGY** is distributed to members of the computer clubs affiliated with MC<sup>2</sup>, and is sold at finer local retailers.

Unless otherwise noted, material contained in **ENERGY** may be reproduced in part or in whole by any other non-profit organization or for other non-commercial purposes. Acknowledgement should be given to "ENERGY, the Michigan Computer Consortium Magazine", and to the author of the material. Please send a copy of the reprint to MC<sup>2</sup> at the address above.

## ABOUT THE MICHIGAN COMPUTER CONSORTIUM

The Michigan Computer Consortium (MC<sup>2</sup>) was formed in 1983 to sponsor joint activities involving computer clubs affiliated with MC<sup>2</sup>. Current members of MC<sup>2</sup> are:

CHAOS (Capitol Hill Atari Owners' Society)  
CMTUG (Central Michigan TRS-80 Users' Group)  
M3G (Mid-Michigan Microcomputer Group).

Information about each of these clubs is published elsewhere in **ENERGY**.

## EDITORIAL BOARD

Dennis Cullinan (CMTUG) 351-2175 Editor

Ike Hudson (CHAOS) 351-3092  
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Joe Werner (M3G) 337-7415

## ADVERTISING

Advertising in **ENERGY** is an economical way to promote your products or services to a key audience involved in personal computing. Three sizes of ads are available: business card, half-page, and full-page. Advertising space is limited and controlled, so that ads will never get "lost". Camera-ready copy is needed by the 15th of the month preceding publication. For more information, contact the Editor.

## ARTICLE SUBMISSIONS

Persons wishing to submit articles are encouraged to do so! Articles may be submitted electronically via CompuNet, or in camera-ready form (3.5 inch columns, 16 characters per inch), or in other forms. Contact any member of the Editorial Board. The deadline for all articles is the 15th of the month preceding publication.



ENERGY = MC<sup>2</sup>...THE MICHIGAN COMPUTER CONSORTIUM MAGAZINE

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## ABOUT M3G

Mid-Michigan Microcomputer Group (M3G) is a non-profit organization of computer hobbyists, enthusiasts, and users in the Lansing and Mid-Michigan area. Formed in 1975, M3G is the oldest personal computer organization in the area. Membership in the club is open to anyone with an interest in personal computing.

## MEETINGS

General membership meetings are held each month, generally on the third Thursday of each month (barring scheduling problems), at the East Lansing Public Library, at 7:30 pm. Visitors are welcome at any meeting.

## DUES

Annual dues for M3G are \$12.00, for 12 consecutive months. Family memberships (two or more people at the same address, receiving only one copy of the Newsletter) are available. The first member pays full dues; additional members each pay \$1.00 per year.

To join M3G, come to any meeting, or send one year's dues with your name and address to: M3G, c/o P.O. Box 1302, East Lansing, MI 48823.

## AFFILIATIONS

M3G is a member of the Midwest Affiliation of Computer Clubs (MACC), and of the Michigan Computer Consortium (MCC).

## NEWSLETTER

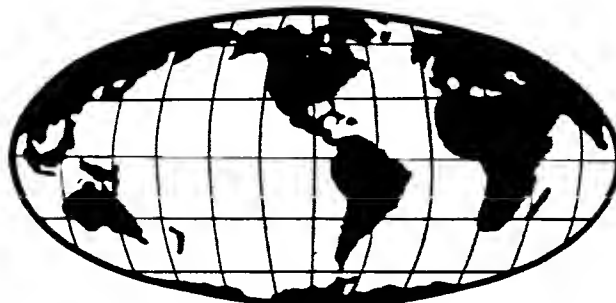
M3G members receive ENERGY, published by the Michigan Computer Consortium, as a benefit of membership.

## SPECIAL INTEREST GROUPS (SIGs)

M3G currently has three active Special Interest Groups: the Osborne SIG, the Heath/Zenith SIG, and the CP/M SIG. These SIGs hold additional meetings as their members wish, and may charge SIG dues in addition to M3G dues if the SIG so decides. SIG meetings are announced in the Meeting Calendar in ENERGY. Additional SIGs may be formed on any computer-related topic which M3G members may want.

## OFFICERS

President.....	Dave Chun.....	394-6318
Vice President.....	Lee Hodges.....	669-3258
Secretary.....	Cheryl Tirone.....	484-3921
Treasurer.....	Lynn Wardwell.....	645-2214
MACC Trustee.....	Frank Dolinar.....	351-1899
CP/M SIG Chair.....	Greg Martin.....	484-5850
Heath/Zenith SIG.....	Bill Goodwin.....	349-9657
Osborne SIG Chair....	Jim Pease.....	332-8746



## H/Z SIG NEWS

by Bill Goodwin

According to the latest Infoworld Zenith is one the OEM's that have signed up with Digital Research for CCP/M-86 v#3.1. This is supposed to be released in June by DRI. I hope it doesn't take a year (or more) for Heath to get it out to us!! If this OS lives up to it rumors then Microsoft will really have some competition for the 16-biters.

Still trying to get Turbopascal for CP/M-86. The fourth disk from them arrived and the 100 wouldn't read it. (Same as the third disk they sent me) They claim that the Fujitsu format is the same as the IBM format. If that is true, why is that I can read an IBM disk with no problems but can't do the same for the Fujitsu? (By the way, has anyone ever seen or heard of a Fujitsu machine before?) The problem will most likely be solved when the fifth disk arrives. They are sending an 8" disk this time.

Rumor on the HUG BBS (on Compuserve) has it that ZDOS 2.0 will include a device driver for a ramdisk. It is also said that ZDOS will be split into two parts and sold separately. The first part will just be the OS and utilities needed to run it. The other part would be the Programmers package. (MASM, LINK, LIB, etc.) Another rumor says that the Programmers package will include a screen editor in place of EDLIN.

Has anyone sent for VEGA-BOUND I, the game shown on the cover of the April REMARK? It certainly shows off the '100s graphics abilities.

Those of you who are members of the Forth Interest Group and receive their newsletter, Forth Dimensions, may have noticed a series on multi-tasking that began in the Nov/Dec '83 issue. I have a public domain forth that uses the Forth83 standard written by the same author and incorporating the same code as shown in the series. Let me know if you would like a copy of the program. (it takes about 240k total) I can also provide copies of the application form for FIG membership. Membership will include the two issues that contain the series.

The SIG should be doing what it can to help new users to get started with the computers that they have acquired. The information that is needed, and which we don't have, is who these people are, and what help do they need. If you a new user or know someone who is please let me know at the next meeting. Of course this also applies to the other SIG's and M3G itself. The SIG's can help in their areas and M3G can cover all the rest.

## VIEW FROM THE TOP

by David T.W. Chun  
President, M<sup>3</sup>G

Don't forget to mark your calendar for the Second Annual Lansing Computer Fair. Reserve time on Saturday May 12 at the Foster Community Center (200 N. Foster, Lansing). If you need an excuse, bring the kids. Be extra careful you don't over-sleep since the exhibits will only be open from 10 AM to 2 PM. Will probably be very crowded so get there early or parking may be a problem. More current information can be obtained from Lee Hodges who is coordinating. Also, if you have an unusual computer/computer related 'thing' you think people would be interested in, Lee might be able to reserve space for you.

I know it's still early but if you don't start planning early you might miss the next ComputerFest which is being held in the Dayton, Ohio area. The ComputerFest will be held June 8, 9, and 10. The scheduled exhibits will only be held Saturday and Sunday. More details are forth coming from our MACC trustee, Frank Dolinar. (Just possibly, tickets may already be available from Frank)

Didn't get a chance to announce the program for the April meeting. If all had gone right, Tom Stillwell was to have presented a demonstration on the MSTAT program developed at Michigan State University. This is an inexpensive statistical package developed with the agricultural sciences in mind, meaning that it is capable of handling many of the complex experimntal designs encountered in science and lacking in the more common business packages. In addition Tom said he would demonstrate the Uniform program developed by Microsolutions. This package was briefly described by Jerry Pournelle in the March issue of BYTE. This program reads and writes about 40 different disk formats and also does a MS-DOS/PC-DOS <--> CP/M bidirectional file-copy transfer. If you didn't make the meeting, aren't you sorry now?

The May meeting returns us to hardware when Tom Skelton will bring in and demonstrate his HP-150. This is the Hewlett-Packard's answer to the IBM mouse, a touch-screen computer. (Maybe for this one you should leave the kids home?) You will also get to see those funny little Sony 3 1/2-inch disks. From the product review in BYTE (October) this should be a very interesting computer, especially in view of the screen handling of software.

## AROUND THE INDUSTRY

by

Joe Werner

One item of news from one of the old companies in the industry caught my eye recently. Lore Harp has resigned as President of Vector Graphic Inc.

Vector Graphic Inc. was formed in 1976 by Lore Harp and Carole Ely, to sell an 8K S-100 memory board designed by Lore's husband, Robert Harp. The company, on the strength of Robert Harp's design and Lore Harp's marketing, established a very good reputation both for product quality and for marketing ability. Vector Graphic went public a few years ago, and I thought it would be the beginning of more good things from the company.

But the team of Harp and Harp was falling apart, and after a rather acrimonious divorce, Bob Harp left Vector Graphics. The storm clouds over this disrupted company operations, at a time when Vector Graphic could scarce afford it. The company has been in a tailspin since the split-up, and Lore Harp's departure is just the latest.

Interestingly, some industry observers suggest that we may see some cooperation between Vector Graphic and Corona Data Systems, Inc. Corona's chairman and chief executive, Robert Harp, confirms that Corona has a new product "that Vector is very excited about". The product is reportedly a multiuser supermicro for two to eight users that is compatible with IBM's PC. It will offer 40 Megabytes of disk, and have four or five times the power of any micro now on the market. Look for it around June.

In case you've been on a desert island for a while, you may have missed the news that AT&T has introduced a line of business computers. Six versions of the 3B line have been introduced, ranging from a \$10,000 desk-top multiuser supermicrocomputer, the 3B2/300, all the way up to a \$340,000 minicomputer, the 3B20D. All systems are 32 bit machines using the WE32000 microprocessor, 256K dynamic RAM chips, and UNIX (tm) System V operating system. Don't expect to see the systems out in quantity, however, for almost a year. Production will have to ramp up, and AT&T also needs to allow some time for software developers and OEMs to develop the software for the 3B.

Also in the hardware area, Amlyn Corp. and Micro Peripherals Inc. (MPI) have jointly agreed to manufacture a new 5.25 inch flexible diskette drive, storing 3.2 Megabytes of data on a single diskette. Amlyn sells the product under its Model 1860 designation; MPI will market it as their 1722

MegaDrive. The media is available from Dysan and Brown Disc Manufacturing Co.

As I write this, a rumor is floating around that should be confirmed by the time this hits the street. Apple Computer is expected to introduce "Lolly", or the Apple IIc -- a 10 pound portable version of its IIe. The unit is expected to retail in the \$1000 price range. Look for introduction on April 24.

Also, as I write this, the Hanover Fair is taking place in West Germany. The Hanover Fair is probably the world's largest electronics show -- bigger by far than Comdex, the NCC, and the Consumer Electronics Shows in this country. Commodore is expected to introduce a \$2000 system compatible with the IBM PC at the Hanover Fair. The unit will initially be sold overseas. Commodore would like to market to the serious business user in this country, but former Commodore president Jack Tramiel pushed the mass-market distribution channel so hard that most computer dealers -- which is the distribution method most likely to reach business users -- aren't interested in Commodore. Commodore's image right now is that of very good cheap computers available at Toys R Us or K Mart. That's not bad, but that's not the image of a serious business computer manufacturer, either. So don't expect to see this product in the US too soon.

Hewlett-Packard is on the move again. Their HP 150 computer with touch-screen capability was exciting. Their new ThinkJet printer (see the review in the April, 1984, BYTE) was revolutionary. Now the rumor mill has HP coming out with a portable computer. The new machine, code-named "Nomad", but to be introduced as the HP 110, will be a battery-powered 16 bit computer using Intel's 8088 with CMOS technology. The machine will reportedly have 500 K bytes of memory, one built-in 3.5 inch floppy disk drive and plug-in cartridges for software packages like VisiCalc, WordStar, and Lotus 1-2-3. And although it will lack touch screen capability, it will use an 80 by 24 liquid crystal display screen, making it the first of the lap-sized portables with a display that big.

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JOSEPH W. WERNER  
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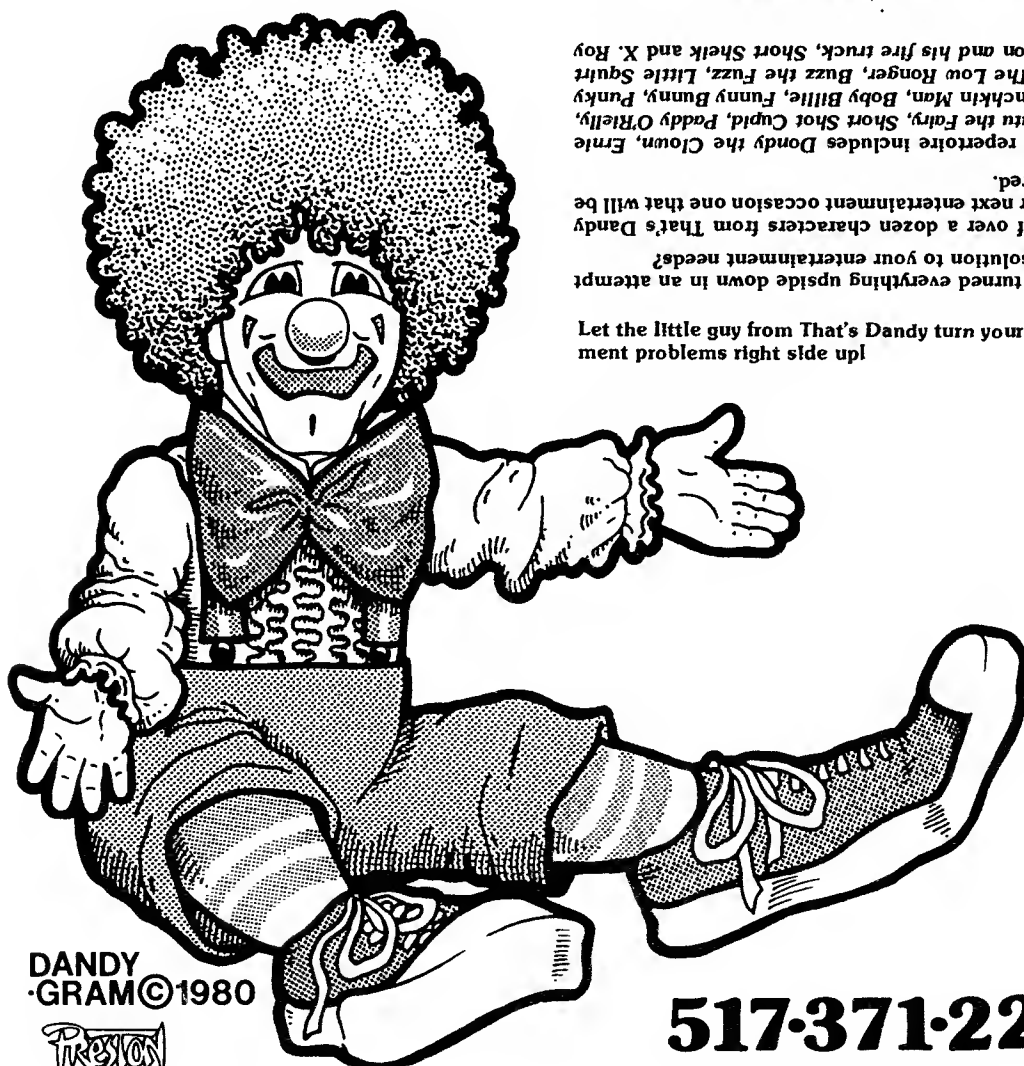
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# OSIG

## dBASE II

Jim Pease

dBASE II is either a programming language or a database management package, or both. MICROSYSTEMS (Feb 84) describes it as "...a cleverly interwoven system created specifically to work with a disk-based database, a database management system, and a set of utilities to create, manipulate and output a database and related programs."

For the non-programmer, the package offers simple procedures to create a database, enter data, manipulate it in several ways, and extract data or write summary report tables. For the more adventuresome, dBASE is an interpretive programming language, like BASIC, in which a programmer can develop complex linked programs which facilitate data entry, transformation and report preparations by users who are usually scared to death of these friendly little micro-machines. In fact, software development in dBASE by third parties has become one of the industry's hottest growth areas. However, dBASE has many weaknesses, and it has not developed much in the last 3-4 years. It is also quite expensive, about \$375 at least. Still, many OS owners got in on that fantastic deal of a free dBASE program, and the power is in your grasp. If you must handle a lot of numbers, mailing lists, etc., dBASE may be just the ticket.

One of dBASE II's strongest points is its English-like syntax. Most commands are structured: VERB-SCOPE-NOUN-CONDITION. For example, DISPLAY NEXT 10 VAR1 FOR VAR2=0 is fairly natural and self-evident. At the May meeting, we'll go through the basic steps of creating and manipulating files with dBASE. I'll show how easy it is to link dBASE up to WordStar, SuperCalc, MBASIC and CBASIC.

## MCI Mail

This is an electronic mail service with no registration fee and no monthly service charge. After you register for MCI Mail you get a password and information. You only pay for what you send, not for what you receive! Not a bad deal for us poor private users.

## Library News

Library acquisitions have been going a bit slower than usual. We have only 3-4 new disks this month. Most are games. There are several interesting educational ones. If you want someone special to exercise mathematical skills then try Star Lanes or Black Friday. Both are text oriented games that simulate business skills using stock purchases and acquisitions. The comments say that a model is used to attempt to simulate actual stock market movements. Simple random sequences are not used.

Larry Tirone has come up with another nice utility to make life easier for us normal users. This one displays the Osborne function key assignments on the screen. It is handy if you name it AUTOST.COM so that it displays the assignments when you boot a disk.

## COMPUTER COURSES?

Another idea for comment. How many persons would be interested in setting up a short course on some topic like MBASIC, WordStar, SuperCalc or even dBASE II !! We certainly have the experts in the group. How many students would be interested? Cost? Who said anything about cost?

## OSIG MEETINGS

HELP! We seem to have a real problem getting ENERGY to you before the meetings. For May the meeting has been scheduled for the THIRD Wednesday. What is your opinion about a more radical change for the June meeting? Say the third SUNDAY!! This may mean a change in meeting place also. How does 2:00 PM on June 17th sound? Look in the May ENERGY for details of the June meeting. Keep this handy in case ENERGY doesn't make it in time next month! The June and July meeting dates have not been reserved yet.

### \*\*\*\* COMING MEETINGS \*\*\*\*

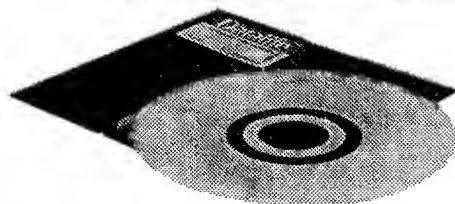
* 16 May	dBase II Applications	*
*	Jim Pease	*
*	Kaypro demo	*
* June	Patching WordStar	*
*	Tom Stilwell-Dave Webb	*
*	Compaq demo	*
* July	Copy Session !!!	*
*	bring your own!	*
* E. Lansing Public Library - 7:30 PM		*

\*\*\*\*\*  
OSIG is the Osborne Special Interest Group of M3G. All OSIG meetings are open to the public. You are welcome to bring your computer, also. Public domain software is available for copying at no charge to OSIG members. Contact Jim Pease at 332-8746 for more information.

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# D I A B O L O G I C

-----  
by Frank Dolinar

## Metamagical Evolution -- Complex Systems from Basic Blocks --

Have you ever noticed how things get out of hand? It isn't because we plan them that way, of course. We always start out with something simple. Then as we continue to work with whatever thing we're shaping, it somehow gets ... well, out of hand.

For example, a few days ago, I had decided that I needed a short little utility program that would take mailing list information out of one of my files and print it onto 3x5 rolodex cards.

Couldn't be simpler? Uh-huh.

It started out simply enough. Just select the name and address data, format it a little, and print it on the card. Don't forget the telephone numbers. If the name on the card is a company get the name of the contact person. Et cetera, et cetera, et cetera...

Suddenly, this program doesn't much resemble what I had originally intended. But I'll try it anyway.

Get one of the cards and roll it into the printer. Uh-oh, this is going to get old quickly. I'm not really interested in doing this 200 times. So I got out my handy NEBS catalog to find a set of "continuous rotary file cards". Just what I needed.

And when I mentioned this to Dawn, her comment stopped me cold. She said, "You always seem to have a way to complicate things." What could I say?

I began to think about the problem. The complexity arose out of a simple task. Why? How does complexity arise from things which appear at first to be so simple?

Programmers recognize that the most difficult computer programs always seem to grow out of the simplest human concepts. We've found ways of dealing with this complexity by breaking the problem down into smaller and smaller parts until we get to ones that can be dealt with one at a time.

Thanks to work done by Dijkstra, Hoare, Warnier, and others too numerous to mention, we know that it is possible to build very complex systems out of three basic structures: A simple sequence of instructions, conditionals, and loops.

It's possible to develop programs of any arbitrary complexity. But we design these programs. What about complexity arising in other areas?

If you look around a little, you'll rapidly discover the connections of many levels of complexity. Each level seems to be constructed of simple parts, until we examine the parts. Modern physics is a good example of this.

Physicists appear to be using the largest of laboratory tools, particle accelerators, to examine objects smaller than we can imagine, the elementary particles which are the building blocks of all matter.

About 1965, physicist Murray Gell-Mann suggested an elegant system, known as the Eightfold Way, for classifying a specific family of particles from the elementary particle zoo. The Eightfold Way also predicted the existence and character of the Omega-minus particle. When the discovery of the Omega-minus was confirmed, the worth of the Eightfold Way was proven.

Since then, physicists have built larger, more powerful accelerators and more elegant theories to examine even more basic (we think) building blocks, the quarks. We don't know how far this search will go. Each year brings further data, experiment, and theory.

Elementary particles are bound together to form more complex particles, which in turn form the atoms, the chemical elements of the periodic table. The interactions of these elements has produced all of the tangible objects in the known universe, including stars, planets, and even life.

Life. From the biologists point of view, life, in all its variety, is the most complex thing anywhere. But here again, if we look closer we find some basic building blocks. The most basic building blocks for life are the four amino acids which are used over and over to by the double-helix of deoxyribonucleic acid, the genetic code in the chromosomes of the cells of every plant or animal.

There is another form of "life", however. One which does not use amino acids or DNA, John Conway's interactive Game of Life. Like the other things discussed before, Conway's Life is based on very simple building blocks. The rules of the game.

The game is played on a grid (usually a computer's screen). Each position equals one cell. Each cell has eight neighbors. The player initiates the game by placing an 'X' in each cell which is to be alive. The rules are:

1. If a cell has zero or one live neighbors, it will die on the next cycle because it is lonely;
2. If a cell has four or more live neighbors, it will die on the next cycle because it is overcrowded;
3. If a cell has two or three live neighbors, it will live on the next cycle because it has just enough support;
4. If an empty cell has exactly three live neighbors, a new live cell will be born on the next cycle.

The curious thing about the Game of Life is how easily the myriad forms and the complexity can be generated from these simple rules. Martin Gardner thinks that Conway's Game of Life may be

much more than a game. It may mimic the effects of rules built into the structure of matter and these rules may have generated self-reproducing, moving automata in the primordial soup of amino acids before life existed on earth.

Everywhere we look, it seems that when we use certain kinds of very simple rules or have simple building blocks that can be used over and over, the natural outcome tends towards objects which have great diversity and complexity.

Information theory indicates that the building blocks can be as simple as the presence or absence of a single bit of data. With this simplest of building blocks, man has fashioned computers, at once the most simple and the most complex of his creations.

As we build more sophisticated computers, we may be approaching a threshold where the computers (and their protean offspring) may be able to reproduce themselves. When that level is reached, humans may become obsolete.

So, at last, I will take exception to Dawn's remark. I didn't generate the complications in my program, they were already there, inherent in the problem I was trying to solve. It appears to be a fundamental truth of an evolving universe that complexity arises from the (apparently) most basic of forms.

Damn the entropy, full speed ahead!

-----  
Finally, a short bibliography of related, recommended reading:

<u>Grammatical Man</u>	Jeremy Campbell
<u>The Phenomenon of Man</u>	Pierre Tielhard de Chardin
<u>The Dancing Wu Li Masters</u>	Gary Zukav
<u>The Game Players of Zan</u>	M. A. Foster
<u>Code of the Lifemaker</u>	James P. Hogan

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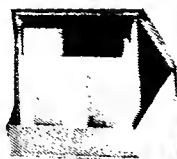
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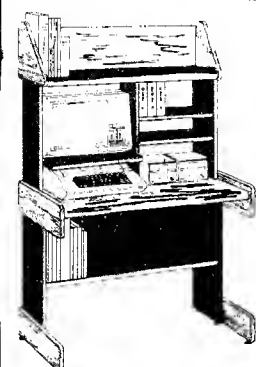
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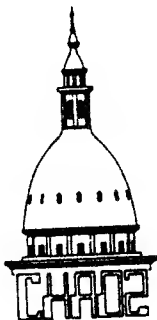
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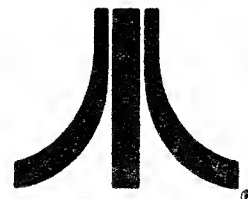




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C.H.A.O.S. is the Capitol Hill Atari Owners Society. CHAOS is the largest computer users group in the Lansing area. CHAOS meets every third Saturday in the Foster Community Center (200 N. Foster, behind the Dunkin Donuts). The meetings start at 9 AM and end around 1 PM. The presentations at meetings include new software, new hardware, and news. Business is limited at general meetings to make the meetings more enjoyable.

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brary, please send a large self-addressed, stamped envelope. Include an extra 50¢ if you are not a CHAOS member to cover printing costs. Mail your request to CHAOS, PO BOX 16132, Lansing, MI 48901.

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CHAOS has many books and other publications about the Atari computers that can be checked out by members. Each month CHAOS receives newsletters from other Atari clubs from around the world.

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If you would like to join C.H.A.O.S. then fill out the Membership Application form found somewhere in this newsletter. Send the application with a check for dues to:

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## QUESTIONS AND ANSWERS

### A SERVICE OF CHAOS, FOR CHAOS MEMBERS, BY CHAOS MEMBERS

QUESTION - Can I use an 80 track double density, double sided drive with the Atari?

ANSWER - YES.

There is a qualification to this answer. You will need the ATR8000 to control it and MYDOS is the only DOS that works with 80 track double sided drives. The ATR will also act as your printer interface, printer buffer, and modem interface. If you get the 64K version, you will also be able to run CP/M 2.2.

QUESTION - How do I get more than 64 files on one disk using a double density DOS like OSA+ or DOS XL?

ANSWER - You don't. That is you don't get more than 64 files on a disk using one of those DOS's. MYDOS 3.011 will allow you to get more than 64 files on a disk. It does this by allowing you to have 64 directories with 64 files in each directory.

QUESTION - Has anyone in the club seen the Astra 1620, and if so, does it work?

ANSWER - Yes. Yes. And you could have seen it at the last meeting.

QUESTION - Is Atari going to produce the Atari 1450XL? What will it do that the 800XL won't?

ANSWER - Yes. It will not be available until the 4th quarter of 1983. As a minimum it will have a true double density drive, new voice chip, and a programmable 300/1200 baud modem. If you want additional information then call THEA KAME. she is the product manager for the 1450XL.

QUESTION - Sometimes I get very frustrated by Atari. Is there someone I can write to if I have a problem or suggestion?

ANSWER - Yes. I have it on good authority that Jim Morgan has been known to answer inquiries from Atari owners. If you write to Atari, address your letter to him. You may get a big surprise, or it may be passed of to someone else to answer, but it will get read. Atari was actually soliciting input from users at the recent West Coast Computer Faire. They even sponsored a hospitality suite one Saturday evening to listen to users. They were the only manufacturer to do this for lowly owners!

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### JUNE MEETING WILL BE "A REALLY BIG SHOW"

by Ike Hudson

The June meeting will be one you won't want to miss. It will also be the type of meeting that will require a lot of equipment.

The first item on the agenda will be a presentation by those who attend the June Consumer Electronics Show. This should be a big show by itself. Last year we had literature on all sorts of new hardware and software and rumors and news about everything. Some of it was even true!

The second half of the meeting will be the biggest software show ever. Many people have been asking Guy to demo a piece of software from the library. There is not enough time at meetings for this type of individual attention to one piece of software. Personally, I think that at \$3-\$4 a disk anyone can afford to take a chance. There are several very good programs on every disk. However, in an effort to let everyone see everything in the library, we will put on a library show.

We will need for everyone to bring at least one piece of equipment or a whole system if possible. We will not use any tape drives. All of the equipment will be set up to run software from the library. The librarian will boot up a different disk on each system. Everyone will wander around looking at all the software. Bring your library list so you will know what disks you want to look at. This may be your only chance to see everything at once for a year.

There will be no copying at this meeting. The librarians will take orders and help people to run the

QUESTION - I read in the April newsletter that Atari was working on IBM compatability and building up the dealer network again. Is there any truth to this?

ANSWER - Yes. I have talked to SWP, the people who make the ATR8000, and learned that Atari is evaluating the ATR. Atari does not plan to buy SWP, but may license the ATR. ATR is working on the Co-Power 88 to make it better than ever for Atari. This will probably have some relation to the expansion box that was rumored to be dead. There will probably be a box with several slots. You may then plug the board(s) you want into the box to get 128K, 80 columns, CP/M, IBM compatibility, and a variety of other new and exciting features. Why do you think Atari is putting a real double density drive in the 1450XL. If Atari does this right, they will come into the CP/M and IBM compatible market with an immediately committed market share of several million Atari owners. What a start!

---

programs. All orders will be filled as soon as the librarians can fill them. If you know you want a disk, then let the librarians know before the meeting so they can have it ready for you. There will be a limited number of pre-made copies available on a first come, first served basis.

If there is a particular disk that you want to see all or part of, then let the Guy Hurt (484-7675) know that you want that disk on your system so you can see it first. Note that I said on "your system". If you have a system at the meeting, you will be more likely to see more of what you want to see. If not, then good luck.

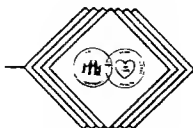
Remember, this is not a copy session! This is a show session. The purpose is to see everything there is to see and take notes about what you like. Guy will be taking orders for disks that you would like to get.

The success of this show will be up to the members. If there is a lot of equipment, everyone will get to see a lot. If there is not a lot of equipment, then we will only see a little. This type of show has a lot of potential, but it is all up to YOU.

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**THE MEMOPAD**  
**CONDUCTED BY DAVE PARSONS**  
Reprinted from Houston ACE

The new year brings good news. I have actually seen Atari advertising that they have a computer. Now, if only they would watch a few Commodore ads, they might pick up a few pointers on how to do effective advertising. What I would really like to see is a heads on comparison between Atari and Commodore. Some suggestions: compare the number of graphics and text modes. Compare the number of colors. Show an Atari BASIC program listing that draws a pattern on the screen and makes a sound while drawing. Do the same program using the standard Commodore basic. Compare the friendliness and ease of drawing to the screen using Atari BASIC commands such as PLOT and DRAWTO, and SOUND, as opposed to the confusing poke statements necessary due to not having any graphics or sound in the Commodore BASIC.

How about a commercial featuring the use of the display list interrupt, part of a proprietary chip (ANTIC) available only on the Atari. I would like to see a short segment of Mike Potter's NAUTILUS or SHADOW WORLD shown against anything Commodore, Apple, or IBM pcjr can come up with now or in the future. Just to see the split screen with its' independent action is mind-blowing, and when, as in Nautilus you have 15 different things happening on each screen, the result is unbelievable.

How many potential computer buyers are aware that VISI-CALC, the original spreadsheet is available for Atari? Many people have no idea that the Atari can be used for anything more than games. they like the graphic and game-playing ability of the Atari, but say they want a computer that does word processing and business programs too. Why not a commercial showing a demonstration of VISI-CALC on the Atari? I know that touting another brand of software may go against Atari's advertising policy, but what can they lose? They've already come as close to loosing the farm as they can. I think a bit of innovation couldn't hurt at this critical stage of Atari's corporate life.

Wouldn't you love to see a commercial showing an Atari computer, along side a Commodore, an Apple, and everybody else, (no mainframes or mini's), with an overvoice saying "All those with 256 colors please signal by pushing the fire button on their joystick." Atari of course being the only one that could do this, fires it's button which in turn releases trap doors on all the other computers, and they fall through landing on a pile of junked computers. The commercial would continue this comparison with another set of the same computers, only with the overvoice stating a different set of disqualifiers each time. with a visual demonstration comparing the selected feature with the other computers before the trapdoor is sprung, this could be a quite effective commercial.

This was only a partial reprint of the article. If you would like to know more about the differences between the Atari and the Commodore or Apple, contact Lance Ward (393-1357). He has owned and programmed some fairly sophisticated software on all three. Lance has a particularly clear insight into all three computers abilities, advatages, and disadvantages sine he has owned and used all three.

I would like to suggest that Atari do a comparison of disk copying speeds. Imagine a picture of two people starting to copy a disk. Five minutes later, the Atari owner is finished and off doing something else. Ten minutes later, the other computer owner is getting bored. Fifteen minutes later, the other owner is getting angry. Twenty minutes later, the other computer owner starts throwing things. Twenty-five minutes later, he puts his Commodore system in the trash can with the drive still trying to finsih the copy. That is a real demonstration of home computer power!

Maybe Atari should call the user-groups for some commercial suggestions. I am sure we would be willing and able to give some very good advice.

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Now is the time to recruit new members. For every new member you bring into CHAOS you will be given a free disk (media and copy fee) out of our very extensive public domain library. You may also qualify for one of the big prizes for recruiting the most new members.

If our membership gets large enough we will begin to receive more freebies from the software and hardware manufacturers. This will benefit everyone, since we give the freebies away to members after the reviewer has finished reviewing it.

We will use the freebies received between now and July 1984 to reward those who recruit the most new members. Remember, you must recruit at least three new members to qualify for one of these prizes. First place will receive first choice, second place will receive second choice, etc.,

We now have five prizes. We have one Electronic Arts program, XBASIC, SCROLL IT, EASY, AND THE PROGRAMMER'S TOOL KIT.  
away.

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## **XBASIC**

### **A Review**

by Rob Peck

XBASIC by SUPERware (I know it looks weird, but that's how they spell it) is a fascinating package which adds 30 commands to Atari Basic. Some of these commands are very nice, like string arrays and disk directories without leaving basic, while others are aimed at the more advanced programmer like two-byte address peeking and poking.

The commands are not integrated directly into Atari Basic, and they don't look anything like a normal basic command. Instead, a special machine language routine is loaded before you start writing your program. This routine consists of 22 lines of basic code numbered 1-12 and 32490-32502. You then add your program statements in the middle and remember to put an END statement at the appropriate spot.

Once you get used to it, it's not nearly as confusing as it probably sounds right now. These lines of code set up a special string used by XBASIC and initialize the machine language routine with a GOSUB call. By adding your program in the middle of this code, everything is made available and initialized for you automatically when you run your program. If you want to use any of the XBASIC features while you are working on the program, you have to issue an immediate mode GOSUB 32500 before you use them.

Enough preliminaries, how do the commands work? All XBASIC commands are implemented as USR calls to the machine language routine. For instance, to get a directory of your disk in immediate mode, you would enter:

```
X=USR(DLIST)
```

The X is a dummy variable, it doesn't mean anything and you can use any name you wish. Each XBASIC command is used in a similar manner with a USR call and some number of arguments, the items in parentheses. Another handy example is a command to delay execution of your program for a specified period of time. The statement:

```
X=USR(DELAY,180)
```

would cause a three second pause in your program. You will note that this USR statement has two arguments, the XBASIC function name, DELAY, and the amount of time to wait expressed in sixtieths of a second. Some of the more involved XBASIC statements require as many as six arguments.

XBASIC provides commands to: read and write blocks of data; save and load screen images; move, clear, and fill memory; do two-byte address peeks and pokes; set up, use, and search string arrays; set up and use integer arrays; set up and play complex sound sequences; get a disk directory; set up, manipulate, and check collisions on players and missiles; use four additional graphics modes; and save programs with the XBASIC machine language routine embedded in them.

All in all, there are a lot of features which XBASIC adds to an Atari computer. Once you get the hang of using commands in the USR format, they're pretty easy to use, although there are some surprises. For instance you dimension a string array for 10 entries, but have to use subscripts of 0 to 9 rather than 1 to 10. I was sure the feature didn't work until I went back and re-read the manual more closely.

SUPERware provides instructions for adding XBASIC to existing programs as well as new programs that you write after you've got it. And, you can save the programs and put them in the library and everybody will be able to use them, even people without XBASIC. That's a really nice feature. One word of warning though, it does eat up 3640 bytes of your computer's memory.

XBASIC is available on either disk or tape and lists for only \$29.95. It comes with a thirty-page manual and several example programs. It seems to be aimed at the fairly advanced basic user and definitely takes some getting used to. But for less than thirty dollars, it's a good way to make those complicated programs easier to write.

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If you have a spare moment and want to see TARICON 84 succeed, then write or call an Atari related vendor. Ask them if they will be at TARICON 84 in SOUTHFIELD, MI (just outside of Detroit). Let them know that you are interested in their product and would like to see it at TARICON 84.

If they want information they can write to MACE, P O BOX, Southfield, Mi or CHAOS, P O BOX 16132, Lansing, Mi 48823. If time is short, they can call the MACE HOTLINE for an immediate response.

The more phone calls they receive, the more likely they are to show up at TARICON 84. In an effort to make it easier on your phone bills, I am listing several toll free numbers. If you have more numbers to add, then give them to me at the meeting or call me at (517)351-3092.

The numbers to get you started are:

TRAK (disk drives)	1-800-323-4853
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MOSAIC (memory boards)	1-800-547-2807
LEADING EDGE (printers, etc)	1-800-343-6833
INDUS (disk drives)	1-800-334-6387
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Some local stores that should be reminded of TARICON 84 are as follows: Video Tech 351-8500 Castle Communications 371-4321 Pro Video (Meridian Mall) 349-7353 Home Video Outlet 321-8958

If we are going to have a great TARICON, then we need these vendors and stores. We need to show them that we would like to see them at TARICON 84. The only way to let them know that there is interest is by calling or writing to them. If you start at the top of the list and work your way down whenever you have a chance, then you will have done your part.

Most of the toll-free numbers are in California. That means you can call in the evening while watching TV. Don't be shy, pick up the phone and call. Just say, "I am interested in seeing your products, but don't always have the opportunity in this area. Will you be at TARICON 84 in Southfield, Mi in August." If you have any questions about their equipment or software then ask them. You will be helping us all by calling. LET THEM KNOW WE WANT THEM TO COME TO TARICON 84!

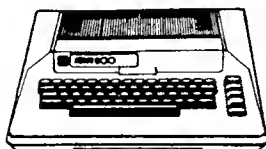
We encourage all other newsletters to reprint this article. You may want to leave out the local numbers, or change them to stores in your area. The more help we get, the better TARICON will be for everyone. If the first one is successful, there will be a second and third one. The next one could be near you!

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# ATARI



## WHAT'S IN THE PUBLICATIONS LIBRARY?

By Mike Aldrich

The CHAOS library has been gathering a lot of good material. All members are welcome to check out anything in the library. Books, magazines, etc., can be checked out from me at general meetings. If you call me at home (394-2412) between 8:30 pm and 10:30 pm, I can either bring it to the CHAOS meeting or we can arrange 3 other pickup points. (1) from Ike Hudson at 519 Linden St (PH# 351-3092) E.Lansing (2) from me at 6826 S. Washington, (PH# 394-2412) South Lansing (3) from me before the Basic User Group Meeting at the Foster Community Center the 1st or 3rd Wednesday of each month. (7-9 pm). The following list of books and magazines are currently in the library.

1) Atari Sound and Graphics by Moore, Lower, and Albrecht. 1 Copy. This is a very good Self Teaching Guide on how to create sound and graphics in your programs.

2) Demopacs 1-7 from Atari. 3 copies. These are short tutorials on how to use different features of the Atari computer. I hear there are 11 now. Features covered are:

- |                              |                              |
|------------------------------|------------------------------|
| a) Strings and Formatting    | f) Data File Processing      |
| b) Formatting Dollar Amounts | g) Bubblesorts & Rocksorts   |
| c) Realtime Clock            | h) Getting Keyboard Data     |
| d) Atari Color Graphics      | i) Advanced (PM) Graphics    |
| e) Display Lists             | j) Redefining Character Sets |
|                              | k) Scrolling                 |

3) The Book of Atari Software 1983. 1 copy. This book is very nice and reviews most of the software that is available for the Atari 400/800 computers and also includes reviews on VCS software.

4) Technical User Notes. 1 copy. This manual is for the more advanced user. It gives an indepth look into the structure and operation of the Atari 400/800 computers.

5) De Re Atari. 1 copy. This is an advanced users manual too, but is easier to understand than the technical user notes.

6) Mapping the Atari by Ian Chadwick (COMPUTE). 1 copy. This is currently the best book out for learning about the memory locations of the Atari 400/800 computers. Most locations are applicable to the 1200 and XL series.

7) Inside Atari DOS by Optimize System Software. 1 copy. This book is GREAT. It tells you everything you ever wanted to know about ATARI 2.0 DOS. \*\* Donated by Rob Peck "Thanks Rob" \*\*

8) Kids and The Atari by Ed Carlson. 1 copy. \*\* Thanks Ed \*\* This is a good beginner BASIC manual for kids.

9) Dr. Wacko's Miracle Guide to Designing and Programming Any Atari Computer. 1 copy. Get in line quick folks, this is a really nice tutorial on how to write fancy programs on your Atari. It includes a two sided disk with all the programs already typed in. All you have to do is read and follow along.

10) Machine Language for Beginners by Richard Mansfield (COMPUTE). 1 Copy. This is another book that is too good to be true. You'll want a personal copy of this once you see it. It starts at square one for people who know absolutely nothing about machine language.

11) Your Atari Computer by Ian Poole. 1 copy. This has been the best overall book out for the Atari for some time. This is another one you'll want a copy of if you don't already have one that is.

12) Newsletters: For All of 1982; Jan, Feb, Mar, Apr, Oct, Nov, and Dec of 1983; Jan and Feb 1984; All CHAOS newsletters from the past. There's a lot of good articles in these folks. The articles in all of these newsletters have been compiled into databases for fast access. The program to do this will come with the databases. The newsletters for each month have been bound into notebooks so they will be easy to thumb thru. A following are a few clubs that we receive newsletters from.

- |                |                                      |
|----------------|--------------------------------------|
| 1) ACUSOFT     | Fayetteville, North Carolina         |
| 2) TURTLE NEWS | Richardson, Texas (PILOT/LOGO Users) |
| 3) AACE        | Austin, Texas (ATR8000 users)        |
| 4) WIRETAPS    | Toronto, Canada                      |
| 5) ACE Eugene  | Eugene, Oregon                       |
| 6) COMPUTAH    | Salt Lake City, Utah                 |
| 7) LACE        | Los Angeles, California              |

13) A lot of various magazines are also available, a few of which are ANALOG, Atari Connection, HI-RES, etc..

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## NEW LANGUAGES

Reprinted from Computeraise Utah

We are all interested in new languages as they become available on the Atari. From NECS (New England Computer Society) via "Bits" comes information about some new and exciting languages coming out for the Atari. Some of these languages are not well known but do have ardent devotees. In fact, it is expected that many Atari users will become some of the most fanatic admirers of these obscure languages.

I can't cover all of the languages in one article so I will give a synopsis of a few this issue and if there is no interest shown in these I will cover the others next issue. I hope you all will be as excited about these new languages as I am.

### SIMPLE :

Acronym for Sheer Idiot's Monopurpose Programing Linguistic Environment. This language, developed at the Hanover College for Technological Misfits, was designed to make it impossible to write code with errors in it. The statements are confined to BEGIN, END, and STOP. No matter how you arrange the statements, you can't make a syntax error.

### DOGO :

Developed at the Massachusetts's Institute for Obedience Training, DOGO heralds a new era of computer-literate pets. DOGO commands include SIT, STAY, HEEL, and ROLLOVER. An innovative feature of DOGO is "puppy graphics", a small cocker

spaniel that occasionally leaves a deposit as he travels across the screen.

### SARTRE :

Named after the late existential philosopher, SARTRE is an extremely unstructured language. Statements in SARTRE have no purpose; they just are. Thus, SARTRE programs are left to define their own functions. SARTRE programmers tend to be depressed and are no fun at parties.

### FIFTH :

FIFTH is a precision mathematical language wherein the data types refer to quantity. Data types range from CC, OUNCE, SHOT, and JIGGER to FIFTH (hence the name of the language), LITER, MAGNUM, and BLOTTO. Commands refer to ingredients such as CHABLIS, CARDONWAY, CABERNET, GIN, VERMOUTH, VODKA, and WHATEVERSAROUND.

The many versions of the FIFTH language reflect the sophistication and financial status of its users. Commands in the ELITE dialect include VSOP and LAFITE, while commands in the GUTTER dialect include HOOCH and RIPPLE. The latter is a favorite of frustrated FORTH programmers who end up using this language.

(Anonymous: disassembled by Mark Champine) Edited by Stephen Lewis

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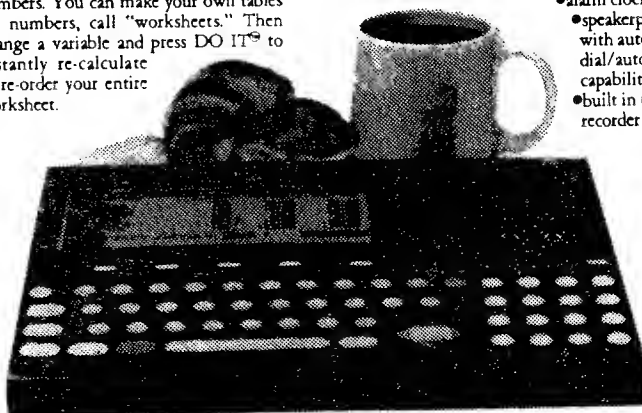
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# RECIPE KEEPER

by Duane M. Knott

Reprinted from Panama Newsletter (TRACER)

What can you use your Atari computer for? My answer is just about anything that your imagination conceives, this versatile machine, with its extensive graphics and easy to learn BASIC language, is ideal for games and those repetitive, mundane chores. RECIPE KEEPER is an example of one such home use.

Tired of having dozens of magazine clippings stuck away in kitchen drawers. Remember where you put that recipe, the ONE that would be perfect for that special meal? Well read on, the solution to that cooking nightmare follows.

This program keeps your home recipe file in a compact storage area, easily retrievable from tape or disk. The program is written so as to be self-modifying and only requires "SAVING" at the end of each run. It can be saved to tape or disk.

```

1000 DIM A(35),A$(35),MSK$(35),R(35),R$(35),NAME$(8)
1020 MSK$="-----"
1040 READ N:REM "N" IS THE START OF NEW RECIPE STORAGE
1060 GOTO 1620:REM GOTO TITLE
1080 REM NEXT RECIPE DATA STORAGE LINE NUMBER
1100 DATA 10000
1120 COL=1:ROW=5
1140 CLOSE #1
1160 OPEN #1,4,0,"K:"
1180 POKE 752,1:POSITION COL,ROW: ? #6:MSK$
1200 R$="":POKE 752,1:POSITION COL,ROW
1220 FOR Z=0 TO 35:R(Z)=0:NEXT Z
1240 FOR J=0 TO 34
1260 POSITION COL+J,ROW
1280 REM INPUT NEXT CHARACTER
1300 GET #1,R:(J)=R
1320 REM CHECK FOR VALID BACKSPACE
1340 IF R=126 THEN POP :GOTO 1540
1360 REM IF CHARACTER OK, THEN ADD TO INPUT
1380 IF R>=65 AND R<=90 THEN ? CHR$(R):GOTO 1500
1400 IF R>=47 AND R<=57 THEN ? CHR$(R):GOTO 1500
1420 IF R>=97 AND R<=122 THEN ? CHR$(R):GOTO 1500
1440 IF R=155 THEN POP :GOTO 1560
1460 IF R=32 THEN ? CHR$(R):GOTO 1500
1480 GOTO 3360
1500 NEXT J:GOTO 1560
1520 REM RENEW MASK AND ERASE LAST CHARACTER
1540 POSITION COL,ROW: ? #6:MSK$:GOTO 3160
1560 FOR Y=1 TO 35
1580 R$(Y,Y)=CHR$(R(Y-1)):NEXT Y
1600 RETURN
1620 GRAPHICS 2+16
1640 POSITION 3,5: ? #6:"RECIPE KEEPER"
1660 POSITION 2,7: ? #6:"DUANE M. KNOTT 1983"
1680 FOR X=1 TO 4:FOR Y=70 TO 90 STEP -1:SOUND 0,(Y*RND(8)),10,14:SOUND 1,(X*100*RND(8)),10,10:NEXT Y:NEXT X
1700 SOUND 1,0,0,0:SOUND 0,0,0,0
1720 GRAPHICS 0:Z=0:GOSUB 2040
1740 ? : ? : ? " MENU:"
1760 ? : ? " 1. ENTER A RECIPE"
1780 ? : ? " 2. REVIEW A RECIPE"
1800 ? : ? " 3. LIST TO PRINTER"
1820 ? : ? " 4. QUIT AND SAVE PROGRAM"
1840 ? : ? : ? " SELECT 1-4:"
1860 TRAP 1920:INPUT X:IF X(1 OR X)4 THEN 1720
1880 REM PRINT 15 LINES OF RECIPE TO THE SCREEN
1900 TRAP 40000:ON X GOTO 2880,2300,2000,3760
1920 TRAP 40000
1940 ? CHR$(125): ? : ? "INVALID SELECTION"
1960 FOR X=1 TO 100:NEXT X
1980 GOTO 1720

```

```

2000 Z=1:GOTO 2300:REM SET "PRINT VARIABLE TO INDICATE "YES"
2020 REM CLEAR SCREEN
2040 ? CHR$(125):SETCOLOR 2,0,0:RETURN
2060 FOR X=1 TO 15
2080 READ A$
2100 IF A$="END" THEN ? A$:GOSUB 2220:GOTO 1720
2120 ? A$
2140 NEXT X
2160 GOSUB 2220
2180 GOTO 2040
2200 REM USED TO CONTROL OPERATION OF PROGRAM BY REQUIRING OPERATOR ACTION BETWEEN OPERATIONS
2220 ? "TYPE 'C' TO CONTINUE"
2240 TRAP 2280:INPUT A$
2260 IF A$="C" THEN TRAP 40000:RETURN
2280 TRAP 40000:GOTO 2220
2300 GOSUB 2040
2320 ? "THIS ROUTINE LIST THE FIRST LINE"
2340 ? "OF A RECIPE, IF NOT THE "
2360 ? "DESIRED RECIPE, ANSWER WITH ANY"
2380 ? "CHARACTER BUT A 'Y'."
2400 GOSUB 2220
2420 GOSUB 2040
2440 RESTORE 10000:REM RESET TO THE FIRST STORAGE LINE NUMBER
2460 READ A$: ? A$:REM READ AND D
2480 GOTO 2540
2500 GOTO 1720
2520 REM DESIRE RECIPE QUERY ROUTINE
2540 ? "IS THIS THE DESIRED RECIPE (Y/N)? "
2560 TRAP 2700:INPUT A$
2580 IF A$="Y" AND Z=0 THEN TRAP 40000:GOTO 2060
2600 REM IF PRINT SELECTED, GO TO PRINT RECIPE ROUTINE
2620 IF A$="Y" AND Z=1 THEN TRAP 40000:GOTO 2720
2640 REM IF WRONG RECIPE- GOTO FIRST LINE OF NEXT RECIPE
2660 READ A$
2680 IF A$="END" THEN 2460
2700 TRAP 40000:GOTO 2660
2720 READ A$
2740 TRAP 2300
2760 LPRINT A$
2780 IF A$="END" THEN GOTO 1720
2800 TRAP 40000
2820 IF PEEK(195)=138 THEN ? "SET UP AND TURN ON PRINTER"
2840 ? " ":FOR X=1 TO 200:NEXT X
2860 GOTO 1720
2880 RESTORE 1100
2900 READ M
2920 RESTORE M
2940 GOSUB 2040
2960 ? "THIS IS THE INPUT ROUTINE"
2980 ? "TYPE EACH LINE OF YOUR RECIPE"
3000 ? "UNTIL IT HAS ALL BEEN ENTERED"
3020 ? "LIMIT EACH LINE TO 35 CHARACTERS"
3040 ? "AND SPACES, END EACH LINE WITH A"
3060 ? "<RETURN>, WHEN ALL THE DASHES"
3080 ? "ARE GONE THE PROGRAM WILL ENTER"
3100 ? "THAT LINE INTO THE PROGRAM."
3120 ? "IF AN ERROR IS MADE IN TYPING A"
3140 ? "LINE, JUST TYPE THE <BACK S> AND"
3160 ? "THE LINE CAN BE REENTERED CORRECTLY."
3180 ? "ADDITIONALLY, A LINE CAN BE EDITED"
3200 ? "AFTER 'QUITTING'. SEE ARTICLE FOR"
3220 ? "DETAILS, ENJOY!!"
3240 GOSUB 2220
3260 GOSUB 2040
3280 GOSUB 1120
3300 A$=""
3320 A$=R$
3340 IF A$(1,3)="END" THEN GOSUB 3460:GOSUB 3620:GOTO 1720
3360 GOSUB 3460
3380 GOTO 3260
3400 GOSUB 2220
3420 GOTO 3260
3440 REM INCREMENT LINE NUMBER AND STORE DATA ROUTINE (SELF-MODIFYING FEATURE)

```

```

3460 M=M+5
3480 GOSUB 2040
3500 ? :? :? M;" DATA ";A$
3520 ? :? "CONT":? "CONT"
3540 POSITION 0,0
3560 POKE 842,13:STOP
3580 POKE 842,12:RETURN
3600 REM UPDATE VARIABLE "M" TO ENSURE PROPER OPERATIONS IN FUTURE SESSIONS
3620 ? CHR$(125)
3640 ? :? :? "1100 DATA ";M
3660 ? :? :? "CONT":? "CONT"
3680 POSITION 0,0
3700 POKE 842,13:STOP
3720 POKE 842,12:RETURN
3740 END
3760 CLOSE #1
3780 OPEN #1,4,0,"K:"
3800 ? CHR$(125):? :? "SAVE TO CASSETTE OR DISK"
3820 GET #1,R:IF R=155 THEN 3800
3840 R$(1,1)=CHR$(R):? R$;:IF R$="C" THEN 3900
3860 GET #1,R:IF R=155 THEN 3900
3880 R$(2,2)=CHR$(R):? R$(2,2):GOSUB 2220
3900 IF R$="C" THEN GOTO 4000
3920 IF R$(2,2)="1" THEN SAVE "D1:RECIPE":END
3940 IF R$(2,2)="2" THEN SAVE "D2:RECIPE":END
3960 IF R$(2,2)="3" THEN SAVE "D3:RECIPE":END
3980 IF R$(2,2)="3" THEN SAVE "D4:RECIPE":END
4000 CSAVE
4020 END

```

The program is divided into four major sections.

1. The enter recipe option
2. The review recipe option
3. The print recipe option  
and
4. The save and quit option.

A summary the program operation:

1. Selecting Option 1 will print a list of instructions detailing how to enter your recipes. The length of any line entered is limited to 35 characters including all spaces. The program will print a "mask" of 35 dashes on the screen. If you reach the end of the dashes the program will automatically enter the recipe line into the program. Shorter lines will be entered after the <return> is typed. The screen flashing is normal and indicates that the recipe is being made part of the program. The program uses the self-modifying features of the ATARI to accomplish this. Although somewhat slow, it is simple and effective. To terminate the entry of a recipe, it is necessary to type the word END. This will also be entered into the data bank and is used to signal the end of a recipe. DO NOT USE PUNCTUATION, ESPECIALLY COMMAS, WITHIN THE PROGRAM. THEY WILL CAUSE IMPROPER OPERATION.

2. Option 2 will print the first line of the first recipe in the data bank. You are queried if this is the desired recipe. Answering "Y" will cause the recipe to be listed to screen. The program will list only 15 lines of the recipe to the screen at a time. This permits writing the recipe down, especially useful if you don't have a printer. If this is not the desired recipe answer "N" and the program will list the first line of the next recipe. This method of operation makes entering a recipe name as the first line beneficial in locating it later. The program returns to "MENU" after displaying the last line of the selected recipe.

3. Option 3 operates the same as Option 2 except that the recipe will be printed on your printer. Ensure that the printer is properly set-up before selecting this option.

4. Option 4 causes the program to be saved and then the program will quit. This option must be used to end all recipe entry sessions. Failure to "QUIT" may cause loss of recipes just entered. DON'T USE BREAK OR SYSTEM RESET TO END A RECIPE ENTRY SESSION.

Each line of a recipe is stored as an individual data statement. Data can be changed when the program is not running by displaying the line to be changed and using the edit features of the ATARI. Be sure to retain a line length of 35 characters maximum. Do not change "END" statements since they are used by Options 2 and 3 to control program listing of recipes.

Also lines inadvertently left out of the initial recipe entry may be added using the edit functions. Select a line number that is not used but falls within the range of the recipe data statements and type the 'line number Data' and then the recipe line. It must not be more than 35 characters long. The next time the recipe is run, this line will be displayed or printed as part of the recipe.

After typing the program in for the first time, run it and select option 4. Answer the question and the program will be saved to disk or cassette. This will create a copy of the program for you. Thereafter, load it in the usual method. The recipes are stored as part of the file and will not be lost. How many recipes can be filed is dependent upon the length of the recipes and amount of memory available in your machine. Memory can be gained for storage by deleting the remarks from the program.

This program can be enhanced by the inclusion of search functions and setting up separate data files for each recipe. However, this will extend memory usage. In later issues, I hope to build this into a most comprehensive and powerful program.

In the meantime, Enjoy!!



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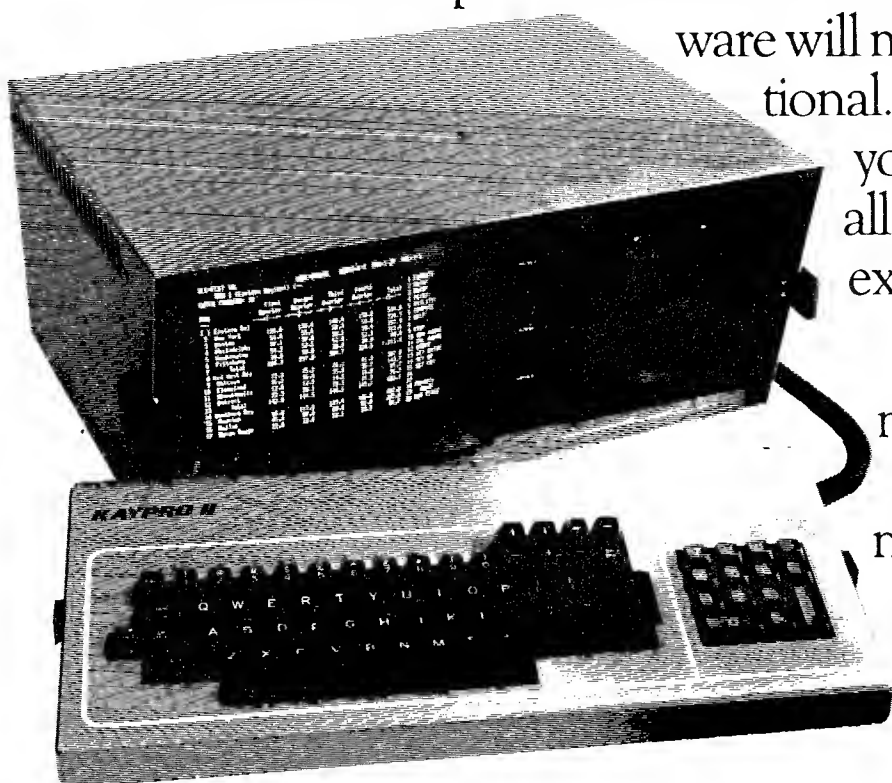
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## CP/M and the SINGLE DRIVE by Dick Peterson

About now you're probably wondering what this stuff about CP/M is doing in the ATARI section of ENERGY. Well, for those of you who didn't know, CP/M will run on your ATARI system if you have the right equipment. The "right equipment" consists of a 64k ATR 8000 and at least one industry standard 5 1/4 or 8 inch drive. Previous articles in ENERGY have told how the ATR works in ATARI mode so I'll talk solely about CP/M (based upon my limited knowledge).

In order to get CP/M running, it is first necessary to boot a program called AUTOTERM. This program changes the relationship of the ATARI and the ATR. The ATARI becomes simply a terminal connected to the Z-80 CPU in the ATR. After AUTOTERM is booted, you insert your CP/M master and press B (boot). In about one second the CP/M sign-on message appears on your screen.

CP/M commands are very similar to Optimized Systems Software's OS/A+ DOS commands for the ATARI (Actually OS/A+ is patterned after CP/M). There is no menu. All commands are entered directly to the Command Processor. For example, if you want a directory of the disk currently in the default drive you simply type DIR<return>. I was very pleased to learn this as I'm an avid fan of OS/A+.

However, there are some differences, one of which created a severe problem for me. CP/M, in it's standard form assumes that at least two disk drives are available. This is not true in my case so I immediately ran into a problem. The Peripheral Interchange Program (PIP) is the standard method of transferring files from one device to another. My problem came to light when I found that PIP didn't have any parameters for specifying that only one drive is available, or that the file to be copied is not on the same diskette as PIP. As a result, it was impossible for me to copy any files.

I figured there must be a way out of this problem so I decided to read the ATR 8000 CP/M Supplement supplied by SWP with CP/M. Sure enough, there was a patch to apply for one drive systems! I applied the patch according to the instructions but I still got an error indicating drive B was not ready. So I tried the patch again...and again... The closest I got was to have PIP make two directory entries on the destination diskette before the system locked. However, the files weren't really there. In all, I think I tried about 10 times with subtle differences before I gave up. I've heard of others successfully applying this patch but haven't seen it in operation.

Shortly after this fiasco, I heard that the CP/M S16 of M36 has a large library of public domain CP/M software. Off to Computer Options in Charlotte to look at the catalog.

Sure enough, there were several single drive copy programs listed. I requested copies of two of the programs and am happy to report that both work just fine. SDCOPY (author unknown) works like most copy programs in that one file is copied at a time with associated disk swaps even though you are copying multiple files. My favorite is SWAPCOPY by John M. Kodis from Buffalo, N.Y. This program completely fills memory before requiring a disk swap (unless of course you're only copying one file that doesn't fill memory). Both run without any modification on the ATR.

Finally success.

If you're interested in CP/M on your ATARI, why don't you join us at the next Chaos Assembler S16. It looks like we may be expanding our scope to include CP/M and the special capabilities of the ATR. If enough interest is shown, separate groups will be formed.

One last thought. The library maintained by M36's CP/M S16 is complete! Everything is there: games, education, payroll, accounts payable, data base, and word processing.



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## A TRIP THROUGH THE CHAOS-BBS

by Bruce Tanner, SYSOP

There have been requests for comprehensive documentation or instructions on the use of the CHAOS-BBS. From what I gather there apparently exists confusion regarding some of the commands and their effects. If you have had difficulty with operating the BBS, or if you intend to experiment with it after getting your new modem, then this is the article for you. Read on! If you are used to the AMIS BBS Systems and your terminal software then I suggest that you go to to Expert Mode, press '6' and sign off now!

It is important to remember that various terminal programs work differently with different bulletin boards. The AMIS type of BBS of which CHAOS BBS is a version is configured for eight bit words with the last bit being a stop bit. Parity is even and your terminal program should be in full duplex mode. The BBS will automatically make translations between ATASCII or ASCII coding. You can determine the translation mode at the beginning of the session or change it mid-stream with the aid of the 'A' command. ATASCII is the default and all you have to do if you desire this mode is press RETURN at sign-on. If your computer does not automatically add a carriage return or line feed at the end of each line then request that the linefeed be added when asked, if you are using other than an Atari to access the BBS. The BBS will handle the X-MODEM protocol found in some terminal programs which allows upload and download of "clean files" and binary files. Otherwise you will have to use conventional upload and download commands that may be on your terminal program and will be able to access only the Basic files.

Current hardware for the CHAOS BBS includes an ATARI 800 with 48K, an ATARI 810 disk drive in single density mode, an Indus GT disk drive in double density mode, an ATARI 625 Printer, the 850 interface and a Signalmann MK VII modem. It is located at the Library of Michigan

where much of the host equipment is on loan from the ATARI Home Computer Division. CHAOS clubmembers have contributed donations towards the modem and Indus disk drive.

Much of the following text is actually a Captured file of the screen data made from a call to the BBS. The text was captured using the AMODEM PLUS terminal program which is an excellent means of using any of the AMIS BBS Systems around the country. If you don't have it then keep track of the CHAOS BBS as it will be made available soon in versions for both the Hayes and Signalmann modems. The Signalmann version should be useable with other brands of Auto Dial/Auto Answer modems also.



On calling and connecting with the BBS press your RETURN key several times and you should see the following command:

SELECT ATARI MODE OR <RETURN>

At this time you are given an opportunity to place your terminal program into ATARI, or ATASCII translation mode. If your terminal program has that option, then select it and press RETURN if you are using an ATARI computer. If neither of the above is true, then just hit RETURN (or ENTER). After pressing the RETURN key

you should see one of the the following messages:

ATASCII Mode  
or  
ASCII Mode

This will be followed by the Welcome Screen:

Capitol Hill Atari Owners'  
Society [517] 373-6788

BBS Located in the Library of  
Michigan. Please make use of  
the [N]essage system!

Thanks for calling CHAOS!

The next prompt will be for you  
name. Just enter it and hit RETURN.

Enter your Name >BRUCE TANNER  
From City,State >OKEMOS, MI.  
You are BRUCE TANNER  
Calling from OKEMOS, MI.  
CORRECT <Y/N>Yes

Your name is then logged to both  
disk file and the printer at the B  
site.

Logging caller No. 2380 to disk...  
On Tuesday 01/10/84 19:34:03 EST

This logging operation is follow  
by a Bulletin which after several cal  
may get boring and time consuming.  
you wish to bypass it or any oth  
operation on the BBS you may pre  
CONTROL 'X' and enter your next Comman  
However, if you are going to do this  
suggest that you memorize or use a co  
of the 'HELP' file so that you know wh  
to enter next because you will enter t  
Expert Mode and the string of possib  
commands will not appear.

^=CTRL ^S=PAUSE, ^Q=RESUME. ^X=QUIT  
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\*\*\*\*\*

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DONATIONS, A GRANT FROM C.H.A.O.S.  
AND FACILITIES OF THE LIBRARY OF  
MICHIGAN.

THE SYSTEM IS A MODIFIED VERSION  
CAPABLE OF OPERATING WITH THE  
SIGNALMAN MK VII MODEM.

WE OF C.H.A.O.S HOPE YOU WILL ENJOY  
THE FACILITIES AND CALL US OFTEN.  
YOUR DONATIONS AND UPLOADS WILL  
HELP THE FACILITIES GROW.

PROBLEMS OR SUGGESTIONS SHOULD BE  
LEFT FOR THE SYSOP AT SIGN-OFF.  
\*\*\*\*\*

01/06/84

Please note the Upload space  
this rotation! This means in part  
that the SYSOP has about run out of  
new program material. The other  
reason is that there has not been  
much room for uploads and some are  
not sure how to go about it so here  
is one opportunity to learn. If you  
have the X-MODEM option on your

terminal program, load a program in-  
to your terminal buffer. After ac-  
cessing the BBS, press the 'U' com-  
mand and check the number of avail-  
able sectors for uploads. If there  
are enough to accomodate your pro-  
gram then type in a file name fol-  
lowing the prompt to do so...to  
abort this function just press re-  
turn.

After entering the file name,  
answer 'Y' to the XMODEM question  
and when prompted send your program  
by pressing START or what ever other  
means your terminal program calls  
for. If you don't have XMODEM cap-  
ability answer 'N' to the BBS ques-  
tion and when ready send your program  
as instructed by your terminal pro-  
gram.

Good luck!!! We need some new  
down load material so I hope your  
efforts are successful.

SYSOP

\*\*\*\*\*

If you have not bypassed the above  
message, then your next command will be  
the following:

Is this your first time on this BBS  
<Y/N>Yes

A 'Yes' response to this question  
will send you to the new user file which  
contains an introduction to the history  
and use of the AMIS BBS's.

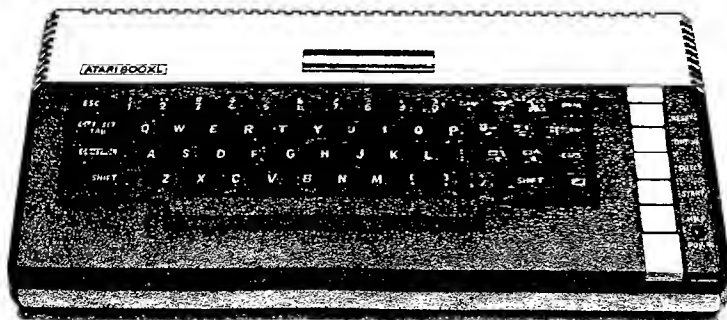
A 'No' response will bring up the  
command string from which you may make  
your next selection. If you are not  
familiar with the BBS I suggest the 'H'  
command. It presents the HELP file which  
follows. (Cut it out and paste it up on  
your wall for easy reference.)

^=CTRL ^S=PAUSE, ^Q=RESUME. ^X=QUIT  
\*\*\*\*\*

We welcome you as a new user to the  
to the C.H.A.O.S. - BBS. This is an  
Atari based BBS, based on the Atari  
Message and Information System  
provided through the courtesy of  
M.A.C.E.

-----

# PRO VIDEO

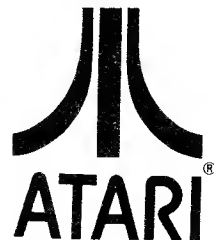


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## Software

SPECIAL ORDERS EXPEDITED



Meridian Mall

The operation of the board is fairly straight-forward. When prompted press the 'H' key for a listing of commands. If you are using ASCII the 'A' key will toggle between ATASCII and ASCII. To use the Message files first press 'M' then follow the message menu commands.

Enjoy your stay...We hope you return often.....

A,B,C,D,F,G,H,I,L,M,N,O,P,T,U,W,X,Y  
or ? >H

^=CTRL ^S=PAUSE, ^Q=RESUME. ^X=QUIT

A-ASCII/ATASCII switch. Changes control character sets between ASCII and ATASCII.

B-Bulletins Reprints bulletins received at entry.

C-Print callers. Lists the names and addresses of callers.

D-Download file. Send a program to you. Use this function in ATASCII mode, or inverse text will not be sent correctly.

PROTOCOL: N=File is Listed Out.

Y=File sent using XMODEM/ANODEM

E-Enter a message into message base.

'E' Sub-functions are self-explanatory.

F-Files, that may be sent with the D-Download function.

G-Goodbye. Exit the System.

H-Help. Prints this list.

I-Index of download files. A short description of the download files.

K-Kill a message. Use this to delete a message from the file. A password may be necessary if one was used at message entry.

L-Line feed on/off. Normally off. For terminals that need an extra line-feed to advance the line.

M-Message base access. To perform functions: E,K,Q,R,S.

N-New user information.

O-Other B.B.S. listing.

P-Post Service (you may view a current text or art file on this service).

Q-Quick scan. An abbreviated scan of message subjects.

R-Retrieve messages. Allows you to retrieve messages, by number, from the message file.

S-Summarize messages. Allows you to scan a range of messages by the message numbers you specify.

T-Time and date. Gives you the current time and date.

U-Upload. Use to upload a file to C.H.A.O.S. BBS from your terminal.

PROTOCOL: N=Use Smart Send, LIST.

Y=Use ANODEM/XMODEM File transfer.

W-Welcome. Reprints welcome message received at sign-on.

X-Expert user. Shortens some system prompts.

Y-Yell for system operator to chat.

?-List current functions.

;-Followed by any text will display on Sysops screen without error.

Note: ^ = CTRL KEY

^N Next message (on Funct. R).

^S Suspend Display, STOP.

^Q Resume Display, START.

^X Abort Display, RETURN TO MENU.

RETURN-Absort a pending function.



At the end of each file you will see the Command String:

A,B,C,D,F,G,H,I,L,M,N,O,P,T,U,W,X,Y  
or ? >U

### FREE SECTORS

On this occasion the 'U' Command was used to check out the number of free sectors available for Upload. As you see, not much available!!

At any rate a file name was entered and refused with a System Error since the disk could not accomodate the file.

RETURN=Exit, File Name >TEST

Are you using the Christensen XMODEM File transfer <N> if not sure <Y/N>Yes

SYSTEM ERROR, TRY AGAIN  
(ERROR REPORTED)

In this example if there had been sufficient room for the file a 'Y' response to the XMODEM question would have resulted in a message that the BBS was ready to receive the file. If you do not have the XMODEM TRANSFER capability on your terminal program then you must answer 'N' to the above prompt. You may check the success of your transfer by going back and checking the number of free sectors after your transfer is completed. If the free sectors are less by the number of sectors your program fills then chances are that you have made a successful upload. If not you may want to try again.

A,B,C,D,F,G,H,I,L,M,N,O,P,T,U,W,X,Y  
or ? >I

The 'I' command will present a file typical of the following. (It is probably good to make this the first command when attempting downloads since it contains the most information):

^=CTRL ^S=PAUSE, ^Q=RESUME. ^X=QUIT  
\*\*\*\*\*

#### DOWNLOAD INDEX

\*\*\*\*\*

UNLESS OTHERWISE NOTED,  
FILES ARE IN LISTED FORMAT. TO  
RUN AFTER DOWNLOADING, DO AN  
ENTER COMMAND TO LOAD THE  
PROGRAM THEN SAVE IT BACK TO DISK  
BEFORE RUNNING.

AN '\*' INDICATES A BINARY LOAD  
FILE. THESE FILES MUST BE LOADED  
FROM THE 'L' COMMAND ON ATARI  
DOS. HAVE FUN DOWNLOADING.  
\*\*\*\*\*

01/06/84

EXTBASIC - This is an excellent  
AUTORUN.SYS file which will add  
about 12 new commands to your  
BASIC. It includes a Variable  
Dump, Renumbering, Block Line

# N & T

## N & T COMPUTING

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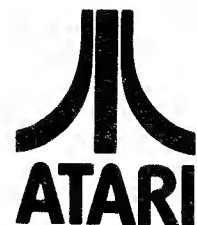
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trak

# commodore

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# ASTRA SYSTEMS

```
*****
* COMMODORE 64          CALL
* COMMODORE DISK        CALL
* USI COLOR MONITOR     $240.00
* ATARI 800XL            $290.00
* INDUS GT               $350.00
* RANA 1000              $335.00
*****
* MAY FAIRE SPECIAL
* SSDD DISKS 10 FOR     $15.00
* GOOD ONLY IF YOU SHOW THIS AD
* GOOD THRU 14 MAY 1984!
*****
```

SOFTWARE SPECIALS  
WHILE AVAILABLE

COMMODORE 64  
SQUISH'EM \$14.00  
TURMOIL \$14.00

ATARI  
WAY OUT \$12.00  
GORF \$12.00  
WORM WAR I \$12.00

VIC-20  
FAST EDDIE \$15.00  
TURMOIL \$15.00  
CALL FOR OTHERS

Delete and several of the more useful DOS commands which can all be called using Direct Command mode from Basic. Can do without this one!! Be sure to also get the documentation file which follows and don't forget to change the name of this file to AUTORUN.SYS on your disk.

EXBASDOC - This is a Text Wizard file of the documentation for the above program. Save it to printer or disk.

BATTLERM - This is a binary load game downloaded from a Las Vegas BBS recently. A good one for the challenge of out witting your necessary opponent.. This is a two or four player game. See documentation file below for strategy and board layout.

BATLEDOC - Documentation for above program..It is necessary to quickly understand the rules of the game.

```
*****
MORE ROOM FOR UPLOADS THIS WEEK
LET'S SEE WHAT YOU HAVE IN YOUR
FILES!!!!
*****
```

The next best command is the 'F' command. It will print the following download file information and will remain on screen after you press 'D' for download so that you can get the spelling of the file names correct! A,B,C,D,F,G,H,I,L,M,N,O,P,T,U,W,X,Y or ? >F

```
^=CTRL ^S=PAUSE, ^Q=RESUME. ^X=QUIT
FILE DIRECTORY---
* EXTBASIC - #32
  BATLEDOC - #27
  EXBASDOC - #89
* BATTLERM - #55
* = BINARY FILE
```

A,B,C,D,F,G,H,I,L,M,N,O,P,T,U,W,X,Y  
or ? >D  
RETURN=Exit, File Name >EXTBASIC

Are you using the Christensen XMODEM  
File transfer <N> if not sure  
<Y/N>Yes  
FILE: D1:EXTBASIC.UDL Ready to Send  
^X to cancel

Again if you have the XMODEM protocol then answer 'Y' to the above prompt for down loading file. This is the cleanest method. If you do not have the XMODEM Option on your terminal software, then prepare a 'Capture' file in advance and capture the program from the screen as it is presented. You may get extra information in the file in this manner but when you 'Enter' your file back to your computer after downloading it should 'RUN' correctly. If you 'SAVE' the program back to your disk the garbage collected during the capture will be deleted. This procedure works only with BASIC files which have been recorded with the 'LIST' command as they are on the BBS. This procedure will not work with BINARY files and to download or upload them to the BBS requires the XMODEM capability.



Pressing the 'M' command will bring  
up the Message Base:

A,B,C,D,F,G,H,I,L,M,N,P,Q,T,U,W,X,Y  
or ? >M  
Loading Message base....

17 Messages. Numbered 401-483

Message section functions:

You are then presented with the following new commands with which to manipulate the message base. The message system consists presently of 400 reserved, single density sectors. Each message entered takes up a portion of this reserved file and that portion remains used until the the message file is compacted by the SYSOP (usually on a weekly basis). An estimated 100 messages can be available at a given time, depending on their length. It can appear after a number of messages have been saved, then deleted that there is still adequate room in the file for more messages when actually all of the reserved space has been used. If this occurs you will get a MESSAGE SYSTEM FULL prompt on attempting to Enter a message. If you try at this point to leave a message, you will likely get a SYSTEM ERROR message upon your attempt to Save your message.

(E)nter, (K)ill, (M)ain menu,  
(Q)uick scan, (R)etrieve, (S)ummary  
?)Q

The 'Q' command here will provide a quick scan of message subjects. The 'S' command will provide a listing of the Subjects and additional information regarding the preamble of the message. You are then given an opportunity to enter the number(s) of messages you would like to retrieve. If you enter one number of an existing message that message will be presented. Several existing message numbers separated by commas will present all of the asked for entries. If you wish to view all messages currently on the board then enter a hyphen followed by the last message number showing.

First Msg 401 - Last Msg 483  
Enter Msg# (From-To)>470-483

474. GENERAL  
476. LETTER  
477. 835 MODEM  
478. SYSOP  
479. WOW THANKS FOR UPLOADS!  
480. LOOK OUT BELOW!  
481. 481 [con'd]  
482. AMPLUS7  
483. SYSOP BRUCE

Enter Msg# (From-To)>

17 Messages. Numbered 401-483

Message section functions:

(E)nter, (K)ill, (M)ain menu,  
(Q)uick scan, (R)etrieve, (S)ummary  
?)R

First Msg 401 - Last Msg 483  
Enter Msg# (From-To)>481,483

MSG# 0481 DATE:01/08/84 TIME:13:07:07  
FROM: TED

TO: ALL  
SUBJ: 481 [con'd]

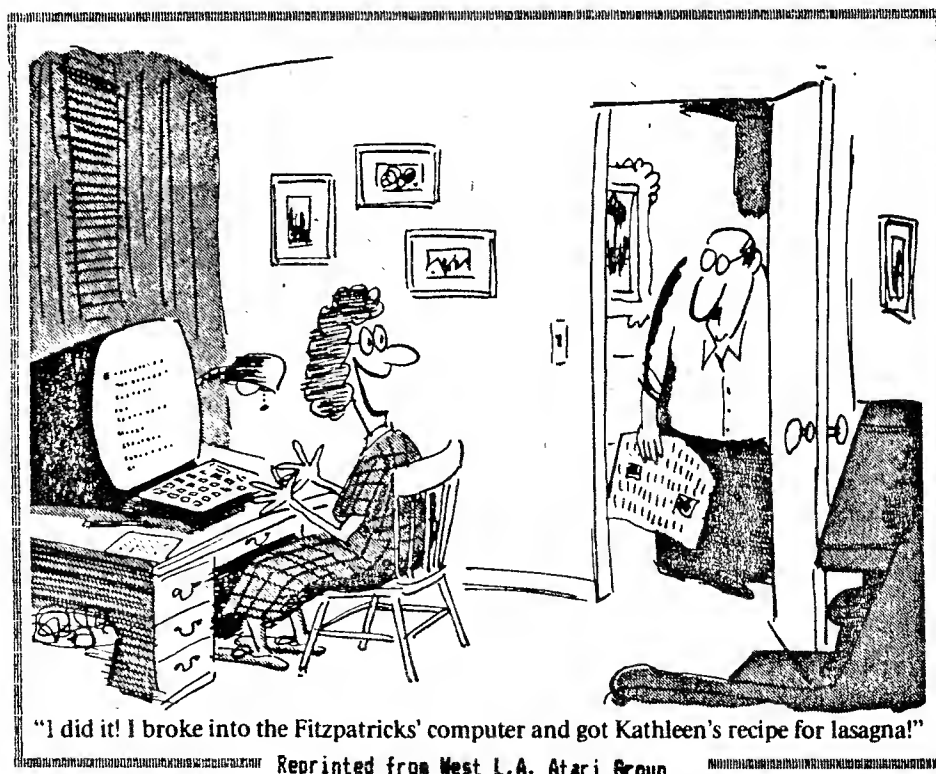
After you upload it, it will be accessible by the public. Simply use the new function 'P'OST. The file will then be displayed on your screen! The SYSOPS will [of course] be monitoring this file for UNESSESARY HOOPLA! So

Please keep it clean, as it can be deleted by any SYSOP at any time from our homes. We hope you enjoy this new service, and utilize it often. For practical reasons, please put a date at the top of your 'P'ost so we can tell how long it has been up, this way we can leave them up for a week or so! Thanks for your time, and until next time, go  
Wildcrazyweirdbe a zombie!

MSG# 0483 DATE:01/08/84 TIME:23:55:24  
FROM: MITCHELL D. WELLS  
TO: SYSOP  
SUBJ: SYSOP BRUCE  
BRUCE, ALSO HAVE NEW BBS LISTINGS TO UPLOAD  
BUT NO ROOM. MAYBE YOU HAVE THIS LISTING  
CAME FROM MACE W. ALL THE SAME WHEN YOU HAVE ROOM I'LL UPLOAD.  
MITCH

Enter Msg# (From-To)>

When within the message system, to return to the message commands just hit 'RETURN'.  
17 Messages. Numbered 401-483



Reprinted from West L.A. Atari Group

## Message section functions:

(E)nter, (K)ill, (M)ain menu,  
(Q)uick scan, (R)etrieve, (S)ummary  
>>E

The 'E' command will allow you to Enter a message to the system. You may also use the 'R' command to read it before saving it for proper formatting then the 'L' and 'E' commands will prompt you for any editing you may wish to do before actually saving the message to the system.

YOU ARE ALLOWED UP TO 16 LINES PER  
MESSAGE. UP TO 80 CHARACTERS/LINE  
Enter Message:  
SUBJECT: BBS ARTICLE  
TO: (RETURN)=All  
TO: ALL

Enter PASSWORD Required to Kill Msg:  
GOTO

Enter Message, Two (CR)s when done  
1

This is a test message left for the  
purpose of demonstrating the BBS

2  
message system to the readers of  
'ENERGY MAGAZINE'.

(A)dd, (E)dit, (L)ist,  
(Q)uit, (R)ead, (S)ave ?S

SAVING MESSAGE....  
SAVED AS MSG#0404

(E)nter, (K)ill, (M)ain menu,  
(Q)uick scan, (R)etrieve, (S)ummary  
>>M

The 'M' command from this point  
will exit the Message base and return  
you to the main command prompts.

A,B,C,D,F,G,H,I,L,M,N,O,P,T,U,W,X,Y  
or ? >X

## EXPERT USER MODE

Here is the format for the Expert  
user mode. See why you better know the  
commands before using it? Without that  
information you can find yourself  
helplessly lost in the BBS and will  
probably select the uncouth option of  
just hanging up on it. If this should

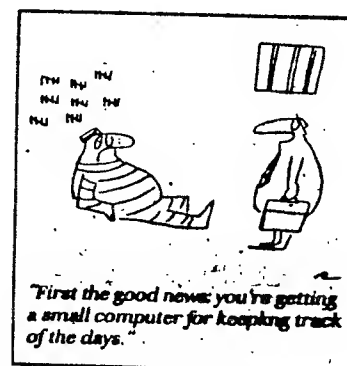
happen, remember the 'G' command which  
means neatly enough 'GOOD BYE'! It will  
bring you to a prompt asking if you wish  
to leave a message for the SYSOP. If  
you choose to do this, the message is  
left on the printer at the BBS and is  
not publicly available. Yes the SYSOP  
does read them, though I admit he's  
remiss in responding to all of them.  
Sorry about that.

OK >G

Any Comments or Suggestions? <Y/N>Yes  
Please, what are they?

>H1 SYSOP HOW YA DOING TONIGHT? SEE  
>YOU LATER IN THE WEEK!  
>

After completing your message, hit  
RETURN a couple of times and the  
following invitation will be given to  
end your session. If you elect 'Y' then  
the BBS will kindly see you off. An 'N'  
will return you to the main command  
string so that you can re-access any



Reprinted from M.O.M.

parts of the system that you may have  
missed. There are some that we missed  
on this little journey too but we have  
covered the rough spots so that you will  
hopefully have a pleasant session next  
time you try and there will still be a  
few files to search out for the  
adventurous. Give us a  
call...,CHAOS-BBS at (517) 373-6788.

End session now? <Y/N>Yes  
On for 00:14:15  
Thanks for calling, ENERGY READER  
Please call again soon!!!

## SHAKESPEARE ON COMPUTERS

Reprinted from Computerease Utah

About computer manuals (Hamlet, II, 2)

"Though this be madness, yet there is method in't."

About peripherals (Hamlet, I, 3)

"Costly thy habit as thy purse can buy"

About program bugs (Hamlet, IV, 5)

"When sorrows come, they come not single spies, but in  
battalions."

On computer salesmen (Hamlet, I, 5)

"One may smile, and smile, and be a villain."

On meeting people via the BBS (The Tempest, II, 2)

"Misery acquaints a man with strange bedfellows."

Extracted from (The Official Computer Hater's Handbook) by  
Stephen Lewis

P.S. From a computer widow comes the remark "It would be nice  
if computer languages were dead languages."

## CMTUG NEWS

by Dennis C. Cullinan

I was unable to attend the April CMTUG meeting, but for the sake of those of you who were also unable to attend, let me tell you what went on. A representative of Inacomp Computer gave a demonstration of Apple's new Macintosh, and Ed Brown of Radio Shack's West Saginaw store showed off the new disk drive/CRT interface unit for the Model 100. It is a shame to have missed either of these demos.

The May meeting will feature software again, since we seem to be having good response to the scheme of alternating hardware and software from month to month. Those of you who came to the March meeting expecting to see a demo of PFS:File will be interested to know that this program has been scheduled again by the sheepishly apologetic volunteer who quite simply forgot to attend that March meeting (he is not a CMTUG member yet). In addition, one of our new members has volunteered to talk about ISAR, by The Alternate Source. Unfortunately, this member approached me with the suggestion, and although I heartily encouraged him to do the talk I did neglect to get his name & number. Therefore this column is my only way to reach this member with a renewed invitation to demo ISAR. O Mystery Member, if you are reading this, please call me at 351-2175 (home) or 373-7513 (work) to put my mind at rest. An eager club awaits your words of wisdom! Both ISAR and PFS:File, by the way, are database management programs, and these demos will continue the coverage of that genre of software from the March meeting. Don't miss it.

The May meeting, by the way, will be on Sunday the 6th at 1 PM at the Library of Michigan, 735 E. Michigan Avenue in Lansing. Use the rear (northside) door, please. Don't forget to bring blank diskettes if you want copies from the CMTUG software library. The Library has the loan of a Model 4P for a month from the Radio Shack Computer Center, to demonstrate to government workers. We can use that for library duplication.

Many of you may see displayed in area computer stores CMTUG's new information brochure. It is a tri-fold flier on yellow paper, explaining the advantages of joining the club, and how to do just that. There are, probably hundreds of TRS-80 owners in this area who do not know about CMTUG, and who really need one or more of our services. The flier is meant to tap that group of owners and bring them into the club. Recent changes in Tandy's store policies now allow us to display our folder on their counters, so we should begin to see some results. By the way, if any likely dealers who might be willing to display our folder on their counters, let me know (at the numbers above); you'd be doing your club a fine service to help spread the word.

Another reason for the production of the folders at this time is the May 12th Foster Computer Faire. CMTUG's participation in this event could result in some real gains to our membership, if the expected crowds do in fact materialize. We will have the folders to hand out to Faire attendees. Your own attendance at the Faire is important, not only for the success of the CMTUG display, but also because it will allow you to see what the other clubs are doing. See you there!

31

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FREE SOFTWARE !!!!!!!!! --- Attention CPM users: We now have available a 240 disk public domain software library (SIG/M and CP/MUG), available for nominal copying charges.

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## MODEL III JOYSTICK

by

Charles Gillen

reprinted from *TECH*, April 84

To add a joystick to the Models I/III you have two choices: buy the Alpha Products Co. joystick for \$28 (as advertized in the January *80-Micro*) or spend \$10.95 for a cable and steal an old Atari video game stick from your kids. The Alpha stick is worth the money, but ties up your expansion buss and still only gives you the original (and rather stiff) Atari stick. My fairly easy modification gives you a standard Atari 9-pin connector to which you can attach any Atari-compatible stick. The Radio Shack catalog # 270-1701 pistol grip stick sells for \$14.95 but an identical twin can be found at other stores for about \$8.

The modification is not for the faint-of-heart, as it involves opening the computer and soldering six wires directly to the keyboard. The only tools needed are a knife or razor blade, a screwdriver and a small soldering iron. If you can handle these with a little confidence, the job is a cinch. The advantage to hard-wiring the stick to the keyboard is that no extra programming is needed, as the stick will work with ANY program (Basic or machine language) that uses the four arrow keys and the spacebar.

My adaptation was on a Model III, but Model I users may be able to profit from my experience up to a certain point. Cheapskates who are mechanical geniuses can start with the catalog # 276-1537 plug and a length of six-conductor wire. An easier but more expensive route is to take advantage of the \$10.95 joystick extension cable which is catalog #276-1977. This article is based on the latter alternative.

First, plug your borrowed or stolen joystick into the extension cable. You no longer need the other end of the cable, so cut off about six inches

from that loose end and save it for some other project. Think twice before you make the cut, or you might blow \$10.95 by cutting off the wrong end. You can remove the joystick for a while.

You now should observe that the flat cable consists of nine wires, one of which is colored red. Call that the number one wire, and number the others two through nine. In the steps that follow, you no longer need wires four, eight and nine, as the Atari only uses six wires: ground, fire button, and four main directions.

Separate all the wires for a length of about six inches, cut off the three we won't need (count carefully!), strip 1/4" insulation from the six that remain, and tin the ends with a soldering iron. Here is what you have now:

Red wire (first position)----UP arrow  
Number two----FIRE button (spacebar)  
Number three----DOWN arrow  
Number four----not used  
Number five----LEFT arrow  
Number six----Common GROUND  
Number seven----RIGHT arrow  
Numbers eight and nine----not used

The various TRS-80 magazines have all featured articles on how to open a Model III to install extra memory or just look around. If you are leery of this operation, consult your magazine files for reassurance--the job is not very hard at all. Find yourself a solid table within reach of an electric outlet for your soldering iron, or just clear off the kitchen counter. Arrange a good worklight. Put the Model III down with the back facing you. Place a thin, flat cushion or several towels immediately to the right of the computer, to avoid scratching the delicate painted finish. Make sure you have unplugged the computer's power cord. Now tilt the computer over onto the cushion, until it is

upside down. If you managed to drop the computer, better quit now while you are ahead.

Otherwise, proceed to remove the screws around the edge of the case. I never counted, but there must be about nine or so. One will lurk under the warranty seal in the lower left corner. The only difference in the screws is that the three short black ones are only used along the front of the keyboard. Gently tilt and turn the computer right side up, holding the sides firmly so the two halves of the case don't separate. Now remove the last small black screw from the middle of the back panel.

We are ready to pop off the case. Make sure your disk drive doors are closed. Standing behind the computer, we are going to lift the top part of the case straight up and lay it down on its side, on the cushion or towel. The CRT and the video circuit board are inside this case top, and connect to the rest of the computer with a cable just long enough to permit the movement described above. Also, remember to lift the case straight up so you avoid banging the delicate neck of the CRT into other computer innards.

Now move around to the front of the computer and remove the few screws that hold the black plastic bezel over the keyboard, and put it aside. Near the right rear corner of the keyboard is a thick black ground wire which clips to the metal shield of the disk drive tower. Unclip one end of that wire. Don't mess with the keyboard's flat ribbon connector. The keyboard is not fastened down, and you can lift the front edge up and tilt it back toward the vertical until the bottom of the keyboard is exposed. The keyboard will lean backwards nicely--that is why we removed that ground wire.

The Model III keyboard is nothing but a set of simple mechanical OFF/ON switches. We are going to wire

in the joystick cable so that the switches inside the stick will trigger the keys we want. Hold up for a bit, we have to plan on how the cable will exit the computer case. Bring the cut end of the cable up through the ventilation slots in the bottom of the case, with the Atari plug on the outside. To anchor the cable better, weave it in and out of several slots and bring about two feet of it out under the back edge of the keyboard (you can take up any slack when the job is done).

This is where I must leave Model I owners on their own, as I opened my last Model I keyboard years ago and can no longer tell you where you must solder the wires. I recall at least one magazine article covered this step, and if you are a bit experimentally-minded you will be able to find the locations yourself. Model III owners, follow me:

The underside of your keyboard (which you are looking at upside down) reveals the solder connections to the keys. Many of these locations are numbered right on the board. Take a minute to visually and mentally compare the key placement with this board, to orient yourself.

Solder the red wire (number one) directly to the solder point nearest to the number 14 on the board. Remember the board is upside down, and don't use 41 by mistake. Solder the number two wire (Fire button) to solder point 53. The other four wires will go to solder points without numbers, but we will use the nearest numbers as reference points.

Wire number three goes to the solder point BELOW number 28.

Number five wire goes to the point ABOVE number 26.

Number six wire goes to the point BELOW number 53 (i.e. it is near wire number two).



Number seven wire goes to the point ABOVE point 27.

That's all there is to it. To make sure you find the proper solder points, let me stress that the ABOVE/BELOW orientation given here is in relation to the NORMAL position of the circuit board (in which the numbers could be read normally). Don't forget that you are reading the board upside-down.

For a test, you can plug in your power cord and joystick and then enter this short program:

```
10  CLS
20  P = PEEK (14400)
30  IF P = 8 PRINT "UP"
40  IF P = 16 PRINT "DOWN"
50  IF P = 32 PRINT "LEFT"
60  IF P = 64 PRINT "RIGHT"
70  IF P > 127 PRINT "FIRE ONE
    TCUG TORPEDO"
80  GOTO 20
```

You might wonder why we don't make a simple test for " $= 128$ " instead of the " $> 127$ ." My method allows you to fire while moving, without slowing down the program action loop with too many tests. It is an improvement so simple, it didn't dawn on me until recently. Please note that your TRS-80 joystick also gives you diagonal action. In Basic, to test for a combined UP and RIGHT stick motion, add 8 and 64 to yield a line such as "IF P = 72 PRINT "BANDIT AT TWO O'CLOCK".

If all has gone well, take up any excess slack in the new joystick cable and leave as much as possible extending out the bottom of the computer. Replace the keyboard in position and clip the thick ground wire back on the disk shield. Screw on the bezel again, replace the top of the case (watch out for the CRT neck) and turn the whole thing turtle one last time to replace the screws in the case bottom.

Just in case anybody has completed the installation without having

read all of this article in advance, too bad. You missed a chance to fine-tune your disk drive speed while the case was open. Some operating systems such as Multidos have a beautiful disk tachometer utility, and all you need is a small screwdriver. Well, now that you know how to get inside your Model III you can put that off 'til another day. Meantime, run an arcade game and give your stick a whirl.

If you still feel like tinkering, remove the joystick and plug in the short remnant we cut off way back at the start. Now that you know what the wires lead to inside the computer, build your own foot-operated joystick, mouse, burglar alarm, or communication device for the handicapped. The computer can now sense 16 different inputs, which equate to the eight joystick positions plus the same eight augmented by the fire button. That same peeking into 14400 also checks the Enter and Clear keys (returning values of 1 and 2), while peeking 14529 checks the joystick plus the left and right shift keys independently (on the Model III).

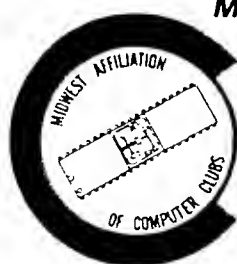
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Tickets are \$5 until May 31 and \$6 thereafter. Write to Computerfest '84 at the address above for tickets. If you don't wish to write or call to Dayton, or if you need additional information about lodging, registration, speakers, volunteers, or other general information about Computerfest '84, contact Frank Dolinar at 351-1899.

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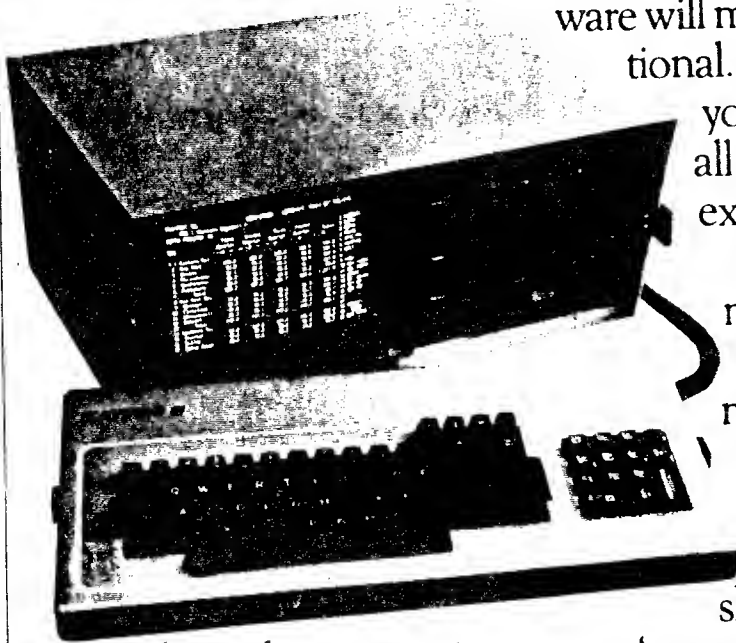
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# INSIDE FACTS

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To bring you up to date, last month we started a series of *Inside Facts* articles about the advertisers in *Energy* magazine, beginning with those precious few who have been with us every month from the very first issue. Following alphabetically, this month's featured advertiser is nCybernetic Frontiers, whose now-familiar ad has graced every back cover ... until this month, that is. Okay, now's the time to check the back cover. "What in the world is a Consult Tech?", you say. Well, that's the new name of nCybernetic Frontiers. "For that matter", you retort, "what in the world is an nCybernetic Frontier?". Therein lies a tale, which I'll tell you right here.

Contrary to the impression created by the *Energy* ads, Consult Tech (to use their new name) is not primarily a dealer for Dyan diskettes, although they do indeed sell those products. Rather, the company is a microcomputer systems consulting firm. President Frank Dolinar is well known to many readers as a member and former president (1978-79) of Mid Michigan Microcomputer Group (M3G). He has been an independent systems consultant since 1978, offering services in the areas of database applications, design and development; software evaluation and selection; software design and development; hardware evaluation and selection; systems integration; and staff training. As an educator, Frank will come to your site to conduct seminars and classes in database systems, program and system design, programming, and computer literacy. As a technical writer, he develops original hardware and software manuals and promotional literature; he'll also revise existing manuals and other literature if needed. As a retail dealer, he can supply to the customer whatever products are recommended for purchase as result of his consulting services, but he does not have a showroom operation *per se*.

Frank Dolinar's consulting experience is further backed up by work for other employers over the years. He has used Burroughs and Hewlett-Packard machines while at Systems Research Inc.; he was a systems analyst for the Michigan Department of Labor; a senior programmer with the Averbach Corporation; a staff consultant with Scientific Time-Sharing Corporation; and he worked on a revision of a document control and review system for the Army while he was at the Research Analysis Corporation.

Besides M3G, Frank holds memberships in AAAS (American Association for the Advancement of Science), ACM (Association for Computing Machinery), IEEE Computer Society, IOCA (Independent Computer Consultants Association), and the World Future Society. He is also particularly proud of his recent appointment as Director of the Lyman Briggs College Alumni Association. And finally, careful readers of this issue will recognize Frank as the author of periodic columns under the wasthead *Diabologic*, in which he examines the history, uses, impact and trends arising from the increasing use of computers.

This may appear to be more of a personal than a company profile, but when you are shopping for a consultant these personal facts are what is most important to know. You'd also want to know some of his former clients for reference; I expect Frank would supply those details to a serious prospective client. If that client is you, tell him Matt Cantrell sent you.

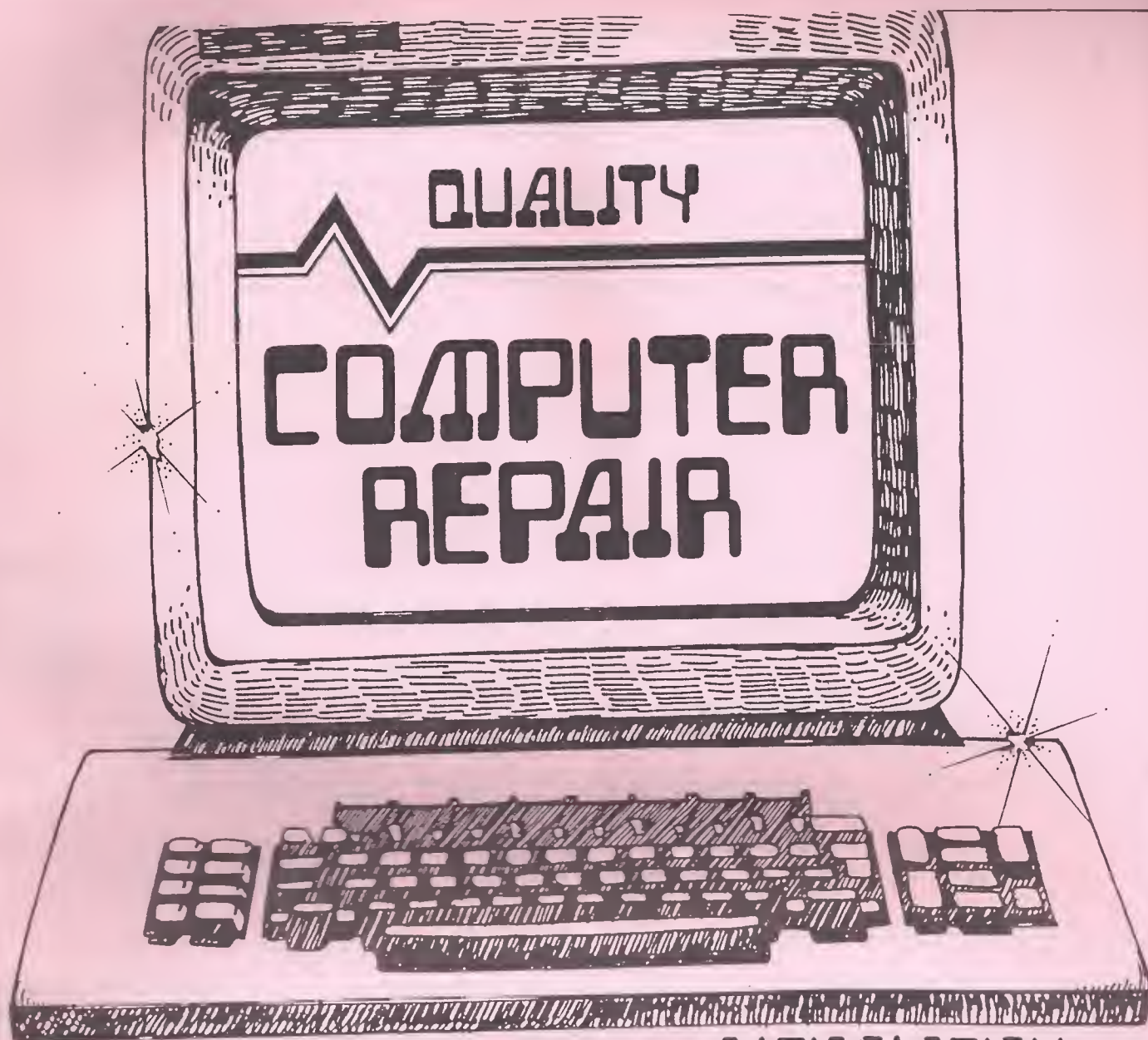
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